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REAL-TIME LIVE INTERPRETING OF BROADCASTS

Diploma Thesis

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Affidavit

I hereby declare that my diploma thesis has been prepared by me independently, using herein listed sources and theoretical knowledge gained through academic endeavours.

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Yelyzaveta Tatarina

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ABSTRAKT

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Cieľom záverečnej práce bolo preskúmať viacrozmernú povahu simultánneho tlmočenia v živých vysielaniach, s dôrazom na odborné zručnosti tlmočníkov, prípravné procesy, profesionálne praktiky a vplyv nástrojov umelej inteligencie. Práca skúma úlohu tlmočníkov pri zaistení jazykovej presnosti a kultúrnej relevantnosti pod tlakom v nepredvídateľných prostrediach, pričom sa zameriava na kľúčové kognitívne a profesionálne výzvy. Osobitná pozornosť je venovaná stratégiám, ktoré tlmočníci používajú na riadenie kognitívnej záťaže, časových obmedzení a požiadaviek vysokorizikových prostredí. Práca sa taktiež zaoberá vývojom nástrojov umelej inteligencie, ako sú technológie prevodu reči na text a spracovanie prirodzeného jazyka, a ich potenciálom na doplnenie ľudských odborníkov pri tlmočníckom procese. Údaje sme získali z pološtruktúrovaných rozhovorov s odbornými tlmočníkmi a sekundárnych údajov z verejných odborných diskusií, ako sú webináre a odborné panelové rozhovory. Na ich spracovanie sme použili metódu kvalitatívneho výskumu, ktorý kombinoval údaje z individuálnych praktických skúseností s širšími profesionálnymi diskusiami. Výsledkom práce je komplexná analýza aktuálnych výziev a praktík v simultánnom tlmočení v živých vysielaniach, ako aj odporúčania pre zlepšenie kvality a efektivity tohto procesu v kontexte technologických inovácií. Pridaná hodnota práce spočíva v poskytnutom prehľade vybranej profesijnej oblasti a praktických odporúčaniach, ktoré poskytujú návod na zlepšenie výkonu a prispôsobenie sa tlmočníkov novým technologickým trendom v tejto oblasti.

Kľúčové slová: preklad v reálnom čase, kognitívna záťaž, preklad s pomocou umelej inteligencie, spracovanie prirodzeného jazyka (NLP), spolupráca človeka a počítača, reč na text, prekladateľské nástroje, odbornosť tlmočníkov, živé vysielanie.

ABSTRACT

TATARINA, Yelyzaveta: Real-time live interpreting of broadcast – University of Economics in Bratislava. Faculty of Applied Languages; Linguistics and translatology – Thesis supervisor: Mgr. Jozef Štefčík, PhD. – Bratislava: FAJ, 2025, number of pages: 99.

The present diploma thesis aims to explore the multifaceted nature of real-time interpreting in live broadcast media, with a focus on interpreter expertise, preparation processes, professional practices, and the impact of AI tools. It examines the role of interpreters in ensuring linguistic accuracy and cultural relevance under the pressures of live, unpredictable environments, addressing key cognitive and professional challenges. Special attention is given to the strategies employed by interpreters to manage cognitive load, time constraints, and the demands of high-stakes settings. The study also investigates the evolving role of AI-assisted tools, such as speech-to-text and natural language processing, and their potential to complement human expertise in the interpreting process. The research adopts a qualitative methodology, combining primary data from semi-structured interviews with professional interpreters and secondary data from publicly available expert discourse, including webinars and professional panel discussions. This dual-source approach provides a comprehensive perspective by triangulating individual practice-based insights with broader professional debates. The thesis concludes with practical recommendations aimed at improving the quality and efficiency of live broadcast interpreting, offering a roadmap for adapting to ongoing technological advancements in the field.

Key words: real-time interpretation, cognitive load, AI-assisted translation, natural language processing (NLP), human-computer collaboration, speech-to-text, translation tools, interpreter expertise, broadcast media.

Table of Contents

Introduction

Live broadcast media serves as a powerful network connecting audiences worldwide, offering real-time access to critical events, from news and sports to cultural programming. The vast and diverse reach of live broadcasting, targeting multilingual audiences, has led to a growing demand for interpretation services that must be both accurate and contextually appropriate. Real-time interpreting in broadcast settings presents unique challenges: interpreters must instantly convey complex messages while maintaining linguistic fidelity and adapting to cultural contexts. In Slovakia, these challenges are particularly significant, as live interpretation plays a crucial role in audience engagement while adhering to both international standards and local expectations.

This thesis examines the current state of real-time interpretation in broadcast media, drawing comparisons between international practices. Based on findings from relevant scholarly research, foundational concepts in the domain of live interpreting are introduced and analysed — from audience expectations to the quality-accuracy trade-offs that interpreters face in time-sensitive environments. Central to this analysis are the skills and preparation that interpreters bring to their work, as well as how real-time interpretation strategies evolve in response to technological advancements.

A key aspect of this thesis is the exploration of artificial intelligence (AI) as both a tool and a challenge in the field of live interpreting. While AI-driven technologies offer support in streamlining interpretation, they also raise questions about the irreplaceable expertise and decision-making processes of human interpreters. Furthermore, the research investigates the ethical, technological, and practical challenges of real-time interpreting, aiming to provide insights that could contribute to improving live interpretation practices in Slovakia and beyond.

1. Current state of the matter in Slovakia and abroad

As of 2024, real-time interpretation in broadcast media remains a pivotal element in worldwide communication, bridging linguistic and cultural divides in live settings. The growing demand for multilingual accessibility, driven by the increasing globalization of news, sports, and cultural events, underscores the importance of high-quality live interpretation. This field operates at the intersection of linguistic precision, cultural adaptation, and technological innovation, requiring translators to navigate immense challenges in time-sensitive and high-stakes environments.

On the international stage, real-time interpretation has become a standard feature of significant broadcasts, including United Nations assemblies, international sports tournaments, and global news coverage. As highlighted by Franz Pöchhacker in his work titled "*Introducing Interpreting Studies"* from 2022, simultaneous interpretation — commonly employed in live broadcasts — places immense cognitive demands on interpreters, requiring both rapid decision-making and deep cultural understanding. Interpreters providing real-time translation services often rely on extensive preparation, teams of skilled co-interpreters, and emerging technologies to maintain the quality of products in given contexts.

In Slovakia, live interpreting is a critical component of the media landscape, particularly for public broadcasters such as RTVS and private networks like Markíza. These organizations frequently handle multilingual coverage of political summits, international cultural festivals, and sports events, ensuring Slovak audience have access to globally significant content. For instance, during EU summits and international sporting events, Slovak translators are integral to providing simultaneous interpretation of discussions and commentary. However, despite its growing importance, Slovakia faces distinct challenges in this field. The availability of specialized training programs for real-time interpreters remains limited, resulting in a skill gap that impacts the quality of live interpretations. Additionally, the relatively small linguistic market contributes to a shortage of professionals trained specifically for high-pressure, live media environments.

Technological advancements, particularly in artificial intelligence, are reshaping real-time interpreting practices worldwide. Tools such as automated subtitling systems, speech recognition software, and machine translation engines enable broadcasters to handle large-

scale multilingual demands efficiently. However, these technologies are not without limitations.

While AI can process and generate translations at impressive speeds, it lacks the cultural sensitivity and contextual awareness necessary for nuanced communication. As Kenny (2020) notes, human translators remain indispensable for maintaining the linguistic accuracy and cultural relevance that audiences expect. Hybrid models, where AI tools assist human interpreters, are increasingly common in international contexts, offering a balance between speed and quality.

In Slovakia, the integration of AI into real-time interpretation is still in its early stages. Broadcasters are exploring its potential to address labour shortages and improve efficiency, particularly in high-volume settings. However, the reliance on human expertise remains central, as local audiences demand culturally resonant translations that reflect Slovak norms and values.

1.1. Conceptualizing live broadcast interpreting

The origins of live broadcast communication trace back to the early 20th century, when the advent of radio and, later, television, revolutionized the way information was shared across distances. The first live broadcasts, such as radio transmissions of sports events and wartime updates, marked a shift from the static nature of printed media to dynamic, real-time communication. With the rise of television in the 1950s, live broadcasting became an indispensable tool for conveying news, entertainment, and cultural events to global audiences, shaping how societies interacted with information in real time.

The need to bridge linguistic and cultural divides in live broadcasts became evident as global connectivity grew. Live broadcast interpretation emerged as an essential component of this media evolution, enabling multilingual audiences to engage with content as it was being transmitted. The simultaneous interpretation of live events, from political speeches to international sports, required a new level of expertise, where translators were not only tasked with linguistic accuracy but also with maintaining cultural relevance across diverse audiences. Scholars such as Pöchhacker (2016) have emphasized the critical nature of simultaneous interpretation in this context, where the challenge lies in rendering the meaning of speech instantly while adapting it to the target culture.

This chapter explores the key concepts and functions of live broadcast interpretation, tracing its origins, examining its evolution, and outlining the core challenges translators face today. It will also discuss the growing role of technology in supporting human translators and explore the balance between human expertise and technological advancements in the realm of real-time interpretation.

1.1.1. Defining live broadcast media

Live broadcast media refers to the real-time transmission of content, typically through television, radio, or online platforms, where the audience receives the broadcast simultaneously with its occurrence. This communication is unique because it offers immediacy, capturing events as they happen, without the possibility of revision or delay. The real-time nature of live broadcasts introduces both advantages and challenges, especially in terms of accessibility, immediacy, and the accuracy of communication. Unlike pre-recorded programs, live broadcasts cannot be edited, making every transmission an unalterable moment that must be translated accurately and efficiently.

While the concept of broadcast media may appear self-evident due to its ubiquitous presence in daily life of most people, its precise definition remains of an essential value to frame our academic discussion. To clearly define the term of the broadcast media for our further exploration, we shall refer to the definitions of established scholars and authoritative sources, which would give us a deeper understanding and thus a broader look on the matter and its importance. According to Doyle (2016), broadcast media typically involve one-to-many communication channels, such as radio and television, which transmit content to audiences via analogue or digital signals. McQuail, a prominent figure in media and communication studies, explored in his work *McQuail's Media and Mass Communication Theory* (2020) how broadcast media function as channels for mass communication, facilitating the dissemination of content to large, diverse audiences. His analysis underscores the societal impact and extensive reach of this form of media.

Building on these foundations, developments in the field led to the emergence of livestreaming, also known as live video streaming and live video broadcasting. As defined by Rogers and fact-checked by Encyclopaedia Britannica's editorial team, livestreaming distinguishes itself from prerecorded formats through its capacity for immediate interaction between broadcasters and viewers. This dynamic shift has led to the medium's increasing use

across a wide range of contexts, with its reach extending far beyond what was once considered possible.

Furthermore, the evolution of livestreaming reflects broader theoretical insights into the nature of contemporary media. Scholars such as Jenkins (2006) and Lotz (2014) argue that the convergence of technologies has not only redefined technical infrastructures but has also transformed communicative practices and audience engagement strategies. In this light, a comprehensive examination reveals that broadcast media, as a field, encompasses not only its technological foundations but also its capacity to serve communicative functions and generate significant societal implications.

For instance, live news broadcasts by prominent European networks such as BBC News, alongside with political addresses and press conferences by institutions like European Parliament and European Commission, demonstrate the medium's critical role in delivering real-time information across borders. Rowe's "*A Reader in Sport, Culture and the Media"* (2003) offers valuable insights into how sports media functions as a cultural and educational force. Rowe compiles a range of essays that collectively argue that live broadcast media — particularly in the context of sports — serves not only to entertain but also to shape cultural narratives and foster collective identity. For instance, the readings highlight that live broadcast of major sporting events (such as football matches or the Olympic Games) create shared experiences that transcend geographic and social boundaries, thereby reinforcing national identity and social cohesion. Similarly, emergency broadcasts utilizing systems like the EU-Alert underscore the essential function of real-time transmission in ensuring public safety. Furthermore, large-scale events such as Eurovision, international conferences like Web Summit in Lisbon and Mobile World Congress in Barcelona, as well as interactive livestreams on platforms such as YouTube Live and Twitch illustrate the transformative impact of broadcast media on European society as of 2025.

Given that live broadcast media serves as a critical communication tool, its stakeholders and dynamics can be effectively identified and analysed through Jakobson's (1960) communication model. In his article "*Closing statements: Linguistics and Poetics*" an influential linguist identified six fundamental components of communication: sender, message, receiver, channel, code, and context. In terms of live broadcast media, the sender is typically the original speaker – such as, depending on a setting and format, a commentator, a journalist, or a public figure – while the message consists of real-time spoken disclosure transmitted to a

wide audience whether through analog or digital television signals, radio frequencies, or internet-based streaming networks. Broadcasters and media companies serve as facilitators of this transmission, ensuring technical and editorial integrity. The audience, as a receiver, engages with the message by consuming it and shaping its interpretation through cultural and contextual lenses.

However, in multilingual live broadcasts, communication is more complex and thus extends beyond this basic linear model, requiring the essential contribution of interpreters as mediators transferring the meaning. Interpreters play crucial role in ensuring accessibility, accuracy and immediacy in live broadcasts. As Castillo Ortiz (2022) highlights, interpreters in multilingual TV and radio production do not operate independently but function within an inter-professional network that includes broadcasters, journalists, producers, and technical staff. Their role is shaped by strategic institutional decisions regarding interpreting modalities, which are influenced by factors such as production timelines, audience engagement strategies, and broadcasting policies. These considerations ultimately determine the extent of interpreters' involvement in real-time broadcasts, reinforcing their position as active participants in the communicative process rather than passive linguistic conduits.

In her article "*Quality in Interpreting: Some Methodological Issues*," Moser-Mercer (1996) outlines essential components for ensuring interpreting quality. She emphasizes the importance of the interpreter's role in facilitating communication, accurately conveying concepts, preparing subject matter and terminology, and adhering to the profession's ethical standards. Moser-Mercer also discusses how quality evaluation varies among different stakeholders, such as interpreters, service providers, users, intermediaries, and trainers, each with distinct expectations and priorities. This perspective suggests that interpreters are not merely passive conduits but active participants who function as both secondary senders and adaptive receivers within the communicative process.

Having situated their position within Jakobson's communicative framework, this thesis further examines interpreters' expertise, preparation processes, and the challenges they face in high-pressure environments, emphasizing their role in live broadcast settings.

1.1.2. Core concepts and key terms

Live broadcast interpretation is inherently linked to a range of interrelated concepts that reflect its complexity and high-stakes nature, therefore practice in this field requires not only linguistic expertise but also a deep understanding of broader theoretical and technical frameworks. Moreover, the ability to critically explore ability to propose advancements in this domain could not be possible without a solid grasp of multiple core concepts and their practical implications. For named reasons, further section offers definitions of chosen terms, which should provide the reader with a nuanced understanding of live broadcast interpretation, forming the foundation for both theoretical insights and practical applications.

Both **real-time translation** and **simultaneous interpretation**, while being highly important in the field of live broadcast interpretation, are closely related and can be considered synonymous or even interchangeable in various contexts. Both given concepts refer to the process of transferring message from source language (SL) to target language (TL) without significant delay, yet distinctions are present. While the term real-time translation is more inclusive and can refer to both spoken and written content, simultaneous interpretation specifically applies to oral translation. In both cases, interpreters or translators must balance accuracy with speed, ensuring that the translated message is culturally relevant and true to the original meaning.

As noted by Gile (2009), the cognitive effort required in simultaneous interpreting is significant, as interpreters must continuously manage listening, memory, and production efforts, while Moser-Mercer (2000) emphasizes the ability to adapt to time constraints and speech complexities. Important is to note, that consecutive interpretation, which involves pauses between the speaker and interpreter, simultaneous interpretation facilitates immediate communication, making it particularly crucial for live broadcasts and global events.

The main modes of interpretation used in live broadcasts—simultaneous interpreting (SI), consecutive interpreting (CI), and remote simultaneous interpreting (RSI) — are selected based on specific technological setups, time constraints, and communicative requirements. SI is the most widely used mode, as it allows to delay real-time message to be delivered with minimal delay (Pöchhacker, 2016). This approach ensures uninterrupted speech flow, making it indispensable for news broadcasts, live political speeches, and sports commentary, but it also

demands high cognitive effort as interpreters must simultaneously manage listening, processing, and speaking under significant time pressure (Moser-Mercer, 2000; Gile, 2009).

Consecutive interpreting, in contrast, involves pausing between speech segments to allow the interpreter to deliver the translation. While this method allows for greater precision and nuance, it is less common in live broadcasts due to time constraints and its impact on speech continuity (Pöchhacker, 2016). Thus, CI is typically used for press conferences, interviews, and official statements, where message accuracy is prioritized over immediacy.

Due to technological advancements and altered needs of globalized world, Remote Simultaneous Interpreting (RSI) has emerged as an alternative to on-site interpretation, allowing interpreters to work off-site via digital platforms (Pöchhacker, 2022). RSI enhances accessibility and cost efficiency but also introduces challenges such as latency issues, reduced audio quality, and limited access to visual cues (Moser-Mercer, 2005). Despite its advantages, studies suggest that RSI may increase interpreter fatigue due to the reliance on unstable technical conditions (Pöchhacker, 2022).

Consequently, such modes as over-the-phone interpreting (OPI) and AI-assisted interpreting occurred, representing developments in the field. OPI, due to its accessibility, is used primarily in emergency broadcasts, live call-in news segments, and multilingual customer support, where interpreters work remotely via phone lines (Jiménez Serrano, 2020). AI-assisted interpreting, driven by advancements in speech recognition and machine translation technologies, is increasingly integrated into live broadcasts to assist human interpreters.

The latency, which in interpreting practice is often being referred to as an **ear-voice span (EVS)**, is an occurring delay between the source speaker's delivery and the interpreter's output. It is a critical component in simultaneous interpreting, as it reflects the time needed to process, understand, and translate the message. Additionally, given phenomenon influences such aspects of live interpretation as synchronization, audience comprehension of the material, and cognitive load of an interpreter. EVS is a concept of considerable complexity, as its nature delves deeply into the cognitive processes, which encompass such aspects as memory retention, linguistic restructuring, and real-time decision-making under pressure.

Goldman-Eisler (1972) explored the ear-voice span (EVS) as a measure of cognitive processing in simultaneous interpreting, demonstrating that latency duration varies with factors such as content complexity, syntactic structure, delivery mode, and interpreter experience.

Barik (1973) contributed to the field by categorizing omissions, additions, and errors related to EVS in simultaneous interpreting, noting that excessive time lag can lead to a loss of meaning.

Cultural adaptation, is one of several methods in terms of translation practices, refers to the process of adjusting the source material to make it more relevant, understandable, and acceptable to the target audience, considering their cultural norms, values, and expectations. This involves modifying elements such as idiomatic expressions, cultural references, humour, and social context, ensuring that the translated content resonates with the audience without losing its intended meaning. Ultimately, cultural adaptation ensures that translated content is not only linguistically accurate but also culturally meaningful, fostering a deeper connection between the content and its audience.

According to Baker (2018), cultural adaptation involves more than just linguistic translation; it requires recontextualizing meaning to align with the worldview of the target culture. Venuti (2017) further distinguishes cultural adaptation by introducing the concepts of *domestication* — adapting content to suit the target culture — and *foreignization* — retaining features of the source culture. While cultural adaptation can improve audience engagement, it remains one of several strategies employed by interpreters, alongside **direct translation**, **paraphrasing**, and **explanatory additions**, depending on the context and communicative goals.

Audience perception or audience comprehension is one challenging to track and evaluate, yet crucial aspect influencing the success of live broadcast translation. In domain of translation studies audience perception tracking explores how viewers or listeners interpret and evaluate translated content, focusing on their comprehension, engagement, and satisfaction. It examines the effectiveness of translation modalities, such as subtitling, dubbing, or live interpretation, in meeting audience expectations. According to Orrego-Carmona (2018**)**, audience reception is influenced by factors such as linguistic clarity, cultural relevance, and technical quality, particularly in AVT. Methods such as eye tracking, surveys, and interviews are commonly used in reception studies to analyse how audiences process and respond to translated media. Types and effectiveness of these and other various tracking methods will be later investigated and discussed as part of this work.

Professional ethics in interpreting play a crucial role in ensuring the integrity and reliability of the field, guiding professionals of the field in maintaining high standards of

conduct. While there is no single, universally standardized code of ethics for interpreters and translators, various professional unions and associations have developed and conducted their own guidelines tailored to specific professional contexts. Despite variety and differences, these codes commonly share an emphasis on such core principles as accuracy, confidentiality, impartiality, and professionalism.

Notable examples include, for instance, "*Ethics of Interpreting and Translating: A Guide to Obtaining NAATI Credentials"* by National Accreditation Authority for Translators and Interpreters, as well as Code of Professional Ethics published on AIIC's (International Association of Conference Interpreters) official website, and also National Code of Ethics for Interpreters in Health Care by the National Council on Interpreting in Health Care (NCIHC), which specifically focuses on ethical practices in healthcare settings, addressing issues like confidentiality and cultural sensitivity. Additionally, many of these associations mutually recognize and endorse each other's codes, collectively ensuring that interpreters and translators uphold high standards of ethical practice across diverse professional settings.

A clear grasp of these key terms is essential, as they underpin our subsequent analysis of live broadcast interpretation practices. By defining real-time interpreting, its various modes, and the critical concept of latency, as well as outlining the ethical frameworks and strategies such as cultural adaptation, we establish a solid foundation for exploring how interpreters navigate the complexities of live media production.

1.1.3. Concept of quality in real-time interpretation

In the realm of live interpretation, the concept of quality is inherently multifaceted and rather subjective to evaluate due to its variety based on individual perspectives and contextual factors. Drawing on the works of numerous scholars in the field, it is evident that discussions on the definition and evaluation criteria of "quality" in interpreting remain an ongoing and evolving disclosure, with varying perspectives reflecting the complexity and contextual nature of the concept. Nevertheless, established theories and classifications continue to serve as a foundation for identifying and analysing the key criteria that shape an interpreter's performance.

In her work "*Constructing interpreting quality*" (2008), Grbić explores the concept of quality as a social construct, emphasizing its relativity based on individual assessors and

specific contexts. She highlights that quality benchmarks vary across different systems, including training, professional practice, and interpreting research, underscoring the need for a multi-perspective approach to quality evaluation. Scholars like Bühler (1986) and Kopczynski (1994) argue that interpreting quality is context-dependent, varying according to specific situations and requirements. They suggest that an ideal quality of output can only be defined concerning the particular context, acknowledging that different interpreting scenarios may necessitate distinct priorities and approaches.

Pöchhacker (2001) proposes that the success of communicative interaction is the most significant quality standard in interpreting. He emphasizes equivalence of intended effect, adequacy of expression, and accuracy compared to the source text as critical components of quality. This perspective highlights the importance of achieving the desired communicative outcome in the target language. Additionally, this viewpoint acknowledges that quality is not solely the interpreter's responsibility but is influenced by the dynamics of the communicative interaction, including the speaker's clarity and the interpreter's proficiency.

Theoretical frameworks, including the Interpretive Theory (established by Seleskovitch in 1970s) and Cognitive Load Theory (coined in 1988 by Sweller), provide valuable insights into the cognitive processes underpinning interpretation and highlight the importance of managing mental resources to maintain quality. Empirical studies underscore the critical role of preparation in reducing cognitive load and enhancing performance. For instance, research by Thóroddsdóttir and Gísladóttir (2024) demonstrates that adequate preparation significantly improves the quality of sign language interpretation by increasing understanding and facilitating delivery.

Professional guidelines, such as those mentioned in the previous chapter, established by the International Association of Conference Interpreters (AIIC), advocate for clarity, coherence, and ethical standards in interpretation. These guidelines serve as benchmarks for practitioners striving to navigate the complexities inherent in live interpretation.

Discussed works provide a foundation for identifying and exploring the various criteria that constitute quality in an interpreter's performance, guiding both theoretical exploration and practical application in the field of interpreting studies. Drawing conclusions from available theoretical works, we are able to identify such crucial criteria as **accuracy**, **fluency**, **logical cohesion**, **correct terminology**, **appropriate style**, **appealing vocal delivery** (voice and

intonation). These indicators are essential not only as the cornerstone of an interpreter's performance, but they also help to track and evaluate how they impact the outcome of interpretation product and, thus, the effectiveness of communication in multilingual settings.

As we transition to exploring the expertise and working practices of live interpreters in broadcasting, it is crucial to recognize that the theoretical insights and empirical findings discussed herein form the foundation for understanding the competencies required in this specialized field. The ability to balance quality, accuracy, and efficiency in real-time settings is not only a theoretical endeavour but also a practical challenge that demands continuous professional development and adherence to established best practices.

1.2. Interpreter expertise and professional practices

The demanding and dynamic field of live interpretation requires professionals to exhibit a blend of linguistic proficiency, cultural sensitivity, and most importantly – cognitive agility to facilitate effective cross-cultural communication. Additionally, incorporating subject matter expertise is crucial, as it enables them to accurately and efficiently convey specialized terminology and concepts, ensuring precise and appropriate translations. Beyond mere bilingualism, interpreters must master active listening, rapid information processing, and precise message conveyance, all while maintaining impartiality and ethical standards. This section delves into the development of expertise in real-time interpreting, examining the rigorous preparation processes, strategic planning, and cognitive challenges that interpreters navigate. By exploring these facets, we aim to illuminate the strategies employed by professionals to uphold quality and accuracy under the inherent pressures of live interpretation.

1.2.1. Developing expertise in real-time interpreting

Previous discussions reinforce a finding, that real-time interpreting is a highly specialized skill, requiring a dynamic interplay between linguistic proficiency, cognitive agility, and strategic thinking. Nevertheless, to define expertise in the realm of real-time interpretation requires an examination of how interpreters navigate the mental and strategic challenges inherent in the process. Expertise in present case is not merely the ability to understand two languages and switch between them, instead, it's the ability to efficiently manage cognitive load, anticipate speaker intent, and produce accurate interpretations, all under conditions of time pressure.

The concept of expertise in interpretation has its roots in cognitive psychology and the study of expertise in other domains. One foundational theory is Anderson's ACT-R (Adaptive Control of Thought—Rational) Model (1998), which describes expertise as the result of extensive practice that allows experts to automate complex cognitive processes. In the case of interpreting, this means that seasoned interpreters no longer consciously deliberate on basic linguistic structures or vocabulary choices. Instead, they rapidly access stored mental representations, allowing them to focus on higher-level tasks like anticipating discourse flow or managing the emotional tone of the speaker.

As Gile (1995) suggests, interpreters face a dynamic cognitive load that can be broken down into several key efforts: listening and analysis, memory, and speech production. Listening and analysis involve not only the recognition of words but also the comprehension of meaning within context, which requires active engagement with the speech in real-time. Memory plays a crucial role, as interpreters must hold information temporarily in order to relay it accurately and coherently in the target language. Finally, the speech production effort is responsible for formulating and articulating the interpreted message, which demands both fluency and precision in the target language. These cognitive efforts are interconnected, and successful interpreting hinges on the balance and coordination between them.

However, the process is far from linear. Imbalances in these efforts can lead to cognitive overload, a phenomenon that can impair the interpreter's performance. Thus, it is the seamless coordination of these cognitive tasks, as emphasized in Gile's Effort Model (1995), that underpins high-quality interpretation under pressure. Moreover, expertise in real-time interpreting is developed through deliberate practice, which Ericsson et al. (1993) argue is essential for the acquisition of expert-level performance. Deliberate practice involves engaging in activities aimed at improving specific aspects of interpreting, such as memory retention or speech fluency, and receiving continuous feedback to refine one's skills. This structured, goal-oriented practice enables interpreters to perform complex cognitive processes automatically, thus alleviating the cognitive burden during live interpretation. Furthermore, the acquisition of subject-matter expertise is indispensable for interpreters. Familiarity with specialized terminology and field-specific contexts allows interpreters to reduce cognitive load and enhance performance by anticipating potential linguistic challenges and specialized terms.

To conclude, expertise is a skill shaped not only through deliberate practice and experience but also through the continuous acquisition of subject-matter knowledge. As

interpreters refine their abilities, they develop strategies to manage cognitive load and enhance performance, which lays the foundation for effective preparation and strategic planning. The challenges in real-time interpretation go beyond skill acquisition and extend into the cognitive complexities of processing and producing information under time pressure, thus highlighting the crucial role of both preparation and mental agility in maintaining quality under pressure. This sets the stage for a deeper exploration of the preparation processes and the cognitive challenges interpreters face during live interpretation, where effective strategies can mitigate the demands of the profession.

1.2.2. Preparation processes and strategic planning

While linguistic proficiency is critical, subject-matter expertise plays a crucial role in the development of real-time interpreting skills. In fact, specialized knowledge can significantly enhance an interpreter's ability to handle complex topics and advanced terminology. According to AIIC (International Association of Conference Interpreters), experts in specific fields such as law, medicine, or economics are better equipped to interpret technical jargon and nuanced discourse without losing meaning or compromising accuracy.

However, subject-matter expertise is not just about knowledge of terminology; it is also about understanding the deeper structures and assumptions that inform the discourse in particular fields. For instance, an interpreter specializing in international law needs not only to know the legal terms in both languages but also to understand the legal principles and frameworks behind those terms. This level of understanding enhances the interpreter's ability to anticipate the discourse, which, as Gile's model suggests, reduces cognitive strain and allows for a more fluid, accurate interpretation.

Additionally, real-time expertise in interpreting requires more than just mastering a set of terminologies — it involves the ability to synthesize complex information in real time. Expert interpreters often engage in mental mapping, organizing chunks of information in ways that enable quick recall and efficient processing. This is a cognitive strategy referred to as *chunking*, which allows interpreters to mentally group information into manageable units. For example, instead of interpreting each word in isolation, interpreters with expertise often group phrases or even entire ideas, which allows them to manage cognitive load more efficiently.

Empirical studies have highlighted the role of experience in developing real-time interpreting skills. As noted by Torres Díaz (2015), the high level of exposure and the demanding nature of live television interpreting require specialized training and preparation to ensure effective performance. Similarly, Moser-Mercer et al. (1998) found that experienced interpreters performed significantly better than novices in high-pressure settings. One of the primary reasons for this difference was the experts' ability to reduce cognitive effort through advanced mental preparation and anticipation strategies. Moreover, research by Pöchhacker (2016) emphasizes the importance of situational adaptation in the development of interpreter expertise. Experts are able to tailor their interpreting strategies to the specific demands of the event or discourse, while novices often rely on rigid, generalized approaches. This adaptability is a hallmark of expertise, which allows interpreters to perform effectively across diverse situations, whether in legal, political, or medical contexts.

Developing expertise in the field of interpretation requires not only linguistic proficiency but also deep cultural and domain-specific knowledge. For instance, interpreting at the Olympics demands fluency in the unique vocabulary of various sports, from the technicalities of judo and archery to the specific slang of modern sports like surfing and skateboarding. As Alexandre Ponomarev, the chief interpreter for the Tokyo 2020 Olympics, explains in his interview for Wade (2019), the preparation process involves extensive training and study: "*We have glossaries, we have Olympic terminology, and we study different sports*," (Wade, 2019). Even with this meticulous preparation, there are moments when human expertise is indispensable. In the 2018 Winter Olympics, for instance, Ponomarev was "*bamboozled*" by a snowboarder's response, which seemed nonsensical at first, quote: "*Oh, totally rad man. Just so bad.*" – and while AI may be able to translate these words, it would definitely struggle to capture their true contextual meaning, which was actually a sign of praise for the performance.

While linguistic proficiency is foundational to interpreting expertise, there are psychological and ethical dimensions that must also be considered. Interpreters must develop strategies to handle emotional stress and ethical dilemmas while ensuring that their personal biases do not affect the interpretation. These skills are often developed through experiential learning and self-reflection, as interpreters encounter a variety of challenging scenarios in real-time settings. For instance, when interpreting a controversial political speech, an interpreter must balance accuracy with neutrality, ensuring that the translation remains faithful to the speaker's intent while adhering to ethical standards of impartiality.

1.2.3. Cognitive challenges in live interpretation

Simultaneous interpreting (ST) is a cognitively demanding endeavour that requires interpreters to process and translate spoken language in real-time, engaging multiple cognitive functions under significant time constraints. Working memory is crucial in SI, as interpreters must hold and manipulate information temporarily while listening and speaking simultaneously. Cognitive flexibility, the ability to switch between tasks or mental sets, is also vital in SI. Interpreters must rapidly adapt to changing topics and speaker intentions. Woumans et al. (2015) observed that interpreters demonstrated superior cognitive flexibility, as evidenced by better performance on tasks like the Wisconsin Card Sorting Test, which assesses the ability to shift cognitive strategies in response to changing contingencies.

Similarly, research has explored the cognitive benefits of the interpreting process itself, suggesting that experienced interpreters may develop enhanced cognitive abilities, such as superior working memory and verbal fluency.

A study by Stavrakaki et al. (2012) examined the cognitive functions of professional interpreters, foreign-language teachers, and non-professional bilinguals, focusing on their working memory and verbal fluency. The study revealed that interpreters outperformed the other two groups, demonstrating superior capacity in tasks that required semantic processing and working memory. This finding suggests that the cognitive demands of simultaneous interpreting not only maintain but may also enhance certain cognitive functions beyond those associated with bilingualism alone.

Experienced interpreters often utilize anticipation, predicting forthcoming speech segments based on context, intonation, and subject matter. This strategy reduces processing time and cognitive load. For example, during international negotiations, interpreters anticipate technical jargon based on the subject matter, allowing for smoother and more accurate translations. Such anticipatory skills are developed through extensive experience and exposure to specific domains. Chunking involves organizing information into manageable units, facilitating comprehension and memory retention. Interpreters often group related concepts together, reducing cognitive load and improving memory recall. For instance, when interpreting a legal proceeding, an interpreter might chunk phrases like “beyond a reasonable doubt” to maintain accuracy and fluency.

The high-pressure environment of SI can lead to stress and fatigue, adversely affecting cognitive functions. Interpreters working in fast-paced settings, such as political summits, may experience increased stress levels, impacting their performance. Implementing stress management techniques, including mindfulness and regular breaks, has been shown to enhance focus and reduce anxiety among interpreters. A study involving interpreters, bilinguals, and monolinguals assessed working memory and verbal fluency. The results indicated that interpreters had superior semantic processing and working memory capacities compared to the other groups. This finding suggests that the practice of SI may enhance specific cognitive functions beyond mere bilingualism.

The results from Stavrakaki et al.'s (2012) study indicate that interpreters' ability to handle complex cognitive tasks such as information retention, semantic fluency, and multitasking may stem from their specialized training and the nature of their work. The interpreters in the study showed heightened abilities to manage and process information quickly, reflecting the demands of real-time interpretation. These cognitive advantages are essential for dealing with the high-pressure environment of live interpretation, where the need for quick decision-making and information recall is constant. Interpreters must frequently anticipate the direction of discourse and prepare mentally for upcoming information, which can mitigate cognitive strain and enhance overall performance.

Numerous cognitive challenges highlight the intricate nature of simultaneous interpreting and provide a strong foundation for understanding the broader implications of human expertise. As we look to the future of interpretation in an increasingly automated world, the cognitive functions developed through interpreting practice may continue to play a pivotal role. Although Al technologies have made significant strides in language processing, they have yet to replicate the cognitive agility and flexibility inherent in human interpreters, whose ability to anticipate, adapt, and synthesize information remains crucial. In the next chapter, we will delve into the role of human expertise in the face of Al advancements, examining how cognitive skills developed through interpreting practice may help human interpreters maintain their relevance in an automated world.

1.3. The role of human expertise amid AI advancements

The phenomenon of intersection of human expertise and machine efficiency in interpretation has currently become a focal point of discussion, due to especially rapidly

evolving landscape of artificial intelligence. Modern and rapidly developing AI-powered tool such as automatic speech recognition (ASR) and neural machine translation (NMT) have enabled real-time translation and interpreting at an unprecedented scale. Global companies like Google, Microsoft, and DeepL have developed sophisticated AI-driven interpreting technologies that promise to provide users with efficiency and accessibility. Yet, while AI systems continue to make significant strides in processing vast amounts of data in a limited timeframe, they often fall short in capturing the fundamental nuances in areas crucial to professional interpreting – context awareness, cultural sensitivity, and most importantly – adaptability inherent in human cognition and intuition.

Live broadcast interpreting, together with attached nuances, proves to be one of the most challenging fields of language mediation, requiring not only linguistic proficiency of both SL and TL, but also the ability to capture tones, decode non-verbal cues, emotions, humour, idiomatic expressions, and speaker intent, all given the topic-specific environment. Especially in media contexts, the interpretative process is not merely about translating words, but also about preserving the stylistic and rhetorical impact of the message, highly influencing its impact on the receiver, and the successful or unsuccessful outcome of the primary intention. Political discourse, for instance, often relies on persuasive rhetoric, metaphors, and culturally embedded narratives and references that AI systems may struggle to interpret correctly. In contrast, a skilled, trained, and well-prepared interpreter can adjust the register, phrasing, and tone, distinguish and prioritize information – all to align with the audience's expectations and sociocultural background.

Unlike AI, human interpreters can adjust their approach dynamically, resolve ambiguities in speech, and ensure accurate, or as close as possible to accurate, communication in high-stakes situations. Unlike machine powered intelligence, which follows pre-programmed models and statistical probabilities, human interpreters engage in active listening and cognitive processing to ensure that the speaker's intended meaning, rather than just the literal words, is conveyed. Furthermore, AI struggles with unpredictable variables such as overlapping speech, fast-paced disclosure, dialectal variables, and sudden shifts in conversation topics – all of which is widely spread in media interpreting.

One of the most striking demonstrations of AI's current shortcomings in live interpreting can be observed in international events such as the FIFA World Cup, the Olympic Games, and the Eurovision Song Contest. These large-scale broadcasts require interpreters to

navigate complex, emotionally charged, and culturally diverse discourse in real time. For instance, in preparing for the Tokyo 2020 Olympics, which featured over 10,000 athletes from approximately 200 nations, Alexandre Ponomarev, the chief interpreter, emphasized the critical role of human expertise in meeting the complex and varied demands of interpreting at such a large-scale event (Wade, 2019). Ponomarev underscores the extensive preparation required for Olympic interpretation, noting that his team undergoes rigorous training. He draws a parallel between the preparation practices of athletes and interpreters: "*They train. They prepare. We have glossaries, we have Olympic terminology, and we study different sports*," (Wade, 2019).

Despite this preparation, challenges persist, as an interpreter mentions, pointing out that each sport, such as snowboarding or surfing, has its own unique language, and interpreters must find culturally appropriate equivalents. The specialized vocabulary and expressions used by athletes in these sports presented challenges that AI could not readily overcome. Ponomarev highlights that his team, which includes former Olympians and experienced interpreters, constantly adapts to these challenges and stresses the distinction between interpretation and translation professional challenges. With such a big number of athletes of diverse backgrounds each bringing their own linguistic and cultural diversity, human interpreters like Ponomarev are essential. "*Behind every language is a mentality*," Ponomarev asserts, underscoring the deep connection between language and culture. As Ponomarev notes in the referred interview, machines "*can't always catch humour, a play on words, or intonation. And they can't see 'a wink*," – he further states, emphasizing the importance of human expertise in these contexts (Wade, 2019).

Similarly, interpreting for high-profile global events like the Eurovision Song Contest requires more than just linguistic expertise; it necessitates an in-depth understanding of the event's cultural context, the shared traditions of the community, and the evolution of its history. Interpreters must be attuned to recurring themes, inside jokes, and subtle references that are embedded in the contest's long-standing narrative, which is generally a reason why the same chosen interprets continue to work on those projects throughout many years. A clear example of this is the 2019 Eurovision Song Contest, where the theme "Diva" and references to past iconic performances were crucial to interpreting the atmosphere of the event. Eurovision interpreters, such as those working with the European Broadcasting Union (EBU), emphasize the need to grasp these cultural nuances to ensure the translation is not just accurate but

contextually meaningful. AI, in this instance, is severely limited. It might translate the words correctly, but it cannot capture the cultural weight of a phrase or reference. Such nuances rely on shared memory and community understanding, aspects of human culture that AI lacks. Furthermore, references to the often playful and ironic nature of the Eurovision voting system, which has been a topic of jest for decades, would be completely lost on AI. The fact that such references are not always explicit and may depend on audience familiarity with past events makes them difficult for machine translation systems to process adequately.

The FIFA World Cup is another prime example of an event where human interpreters are indispensable, given the scale and complexity of the broadcasts. Interpreters at FIFA World Cup events must not only be fluent in multiple languages but also deeply knowledgeable about the intricacies of football, including technical terms, player roles, and the tactical aspects of the game. The commentary during matches is fast paced, often filled with complex terminology and sudden shifts in action. For instance, during the 2018 World Cup, interpreters had to quickly and accurately convey the intense moments of high drama, such as the decisive moments of France's victory in the final match, where the emotion of the commentators needed to be mirrored for viewers across the globe. Take, for example, the emotional reaction of fans and the cultural context behind iconic events, like the celebration of a goal by a particular player. An interpreter must understand the nuances of national pride, historical rivalries, and the unique way fans engage with the sport in different regions. In such case, a victory or a loss carries not just sports significance but also deep emotional meaning for the country. An AI system, even one capable of translating the language of the commentary, could not grasp the national pride or the weight of such a moment, nor could it adapt the tone accordingly.

1.3.1. Tools, trends, and limitations of AI-assisted interpreting

The integration of AI tools into the field of interpreting has brought about transformative shifts, particularly in large-scale international events and real-time translation settings. While AI technologies continue to advance, the application of these tools in live interpreting contexts reveals both their potential and limitations. This chapter aims to explore the key tools currently shaping AI-assisted interpreting, assess emerging trends in the industry, and critically evaluate the inherent limitations that prevent AI from fully replicating the depth and adaptability of human expertise.

To further investigate the integration of AI-assisted tools in interpreting, it is crucial to distinguish that these technologies primarily encompass two key domains: Automatic Speech Recognition (ASR) and Neural Machine Translation (NMT), both of which play pivotal roles in advancing the capabilities of modern interpreting practices. Automatic speech recognition systems enable the transcription of spoken language into text, facilitating the foundation for translation. Meanwhile, neural machine translation is a deep learning-based approach to machine translation, relying on neural networks to improve the fluency and accuracy of translations. Notably, systems such as Google Translate and Amazon Transcribe utilize both ASR and NMT technologies to offer instant multilingual communication. Recent innovations, like the integration of these tools with simultaneous interpreting software, have aimed to improve the real-time capabilities of AI interpreting platforms.

Throughout recent years, ASR has undergone significant transformations. For instance, early ASR systems relied on statistical models such as Hidden Markov Models (HMM) and Gaussian Mixture Models (GMM), which had limitations in dealing with variations in speech patterns, accents, and noisy environments. However, modern deep learning-based models, such as Whisper, have revolutionized ASR by using neural networks to understand more complex and nuanced speech patterns. These models are also multilingual, allowing for high-accuracy transcriptions across various languages and even in noisy or variable acoustic conditions. Such developments have considerably improved the feasibility of real-time speech-to-text applications (VoxReality, 2023).

Neural machine translation has similarly evolved, moving away from traditional statistical machine translation (SMT), which relied on word-by-word translation and alignment between source and target languages. NMT, powered by Transformer architecture, is capable of handling more complex linguistic structures and providing fluent translations. One of the key strengths of NMT is its ability to generalize across domains and languages. Multilingual models such as the No Language Left Behind (NLLB) initiative, which supports over 200 languages, have greatly expanded the accessibility of machine translation, particularly for low-resource languages (VoxReality, 2023).

The integration of ASR and NMT in AI-assisted interpreting systems has led to two primary approaches: cascade and end-to-end solutions. Cascade systems, which combine separate ASR and NMT models, often face challenges such as error propagation—where errors in the ASR output negatively impact the translation quality. In contrast, end-to-end systems

aim to directly translate speech to text without these intermediary steps, offering potential for more seamless and accurate translations. However, end-to-end models still face the challenge of needing more comprehensive datasets, particularly for training on diverse speech-to-text pairs, and their accuracy is continually being optimized (VoxReality, 2023). These advancements in ASR and NMT significantly enhance the capabilities of AI-assisted interpreting tools, improving the quality and accessibility of real-time translations. Despite the progress, challenges remain, particularly in applying these tools to different domains and contexts.

As AI continues to reshape the field of interpreting, it is essential to examine the latest developments and trends, that influence its integration into professional settings. The rise of innovations has led to significant transformations, particularly in live broadcasting, hybrid interpreting models, and speech-to-speech translation. When examining the current status and, thus, the potential of AI assistance in this particular professional field, existing practices of deployment come in hand. Throughout previous years major networks, including BBC, CNN, and Deutsche Welle, have experimented with AI-generated subtitles and real-time translation to enhance accessibility in multilingual news coverage. For instance, the BBC has initiated trials using Generative AI to add subtitles and transcripts to audio content on BBC Sounds, aiming to improve accessibility for audiences with hearing impairments. This trial involves using a speech-to-text AI tool called Whisper AI to generate translations of transcripts, which are then reviewed and edited by the editorial team before being made available to the public.

As a current example, the European Parliament's Directorate General for Logistics and Interpretation for Conferences (DG LINC) has been at the forefront of exploring AI-assisted tools to support human interpreters in high-demand environments. A notable development in this area is the introduction of the Artificial Booth Mate (ABM) during the "*Navigating Innovation and AI in Interpreting*" event in June 2024. The ABM, developed by Ghent University's Department of Translation, Interpreting, and Communication, leverages advanced speech recognition technology to assist interpreters by providing real-time support, such as delivering relevant terms, numbers, and live transcripts during a speech. This innovative tool enhances the accuracy and efficiency of human interpreters, reinforcing the value of human expertise while demonstrating AI's potential to serve as a complement rather than a replacement. Such initiatives highlight the European Parliament's commitment to integrating AI into interpreting workflows in a way that augments human capabilities, ensuring high-

quality, multilingual communication in complex and dynamic settings. This feature utilizes real-time AI-powered speech-to-speech translation, allowing participants to engage in their preferred languages and even simulating personal voice nuances. A preview is scheduled for early 2025, supporting up to nine languages and enhancing multilingual meeting accessibility.

The integration of speech-to-speech translation (S2ST) AI-driven tools into communication platforms, such as Microsoft's real-time speech-to-speech translation in Teams, exemplifies a shift towards multilingual accessibility in various sectors (Warren, 2024). Introduced feature utilizes real-time AI-powered speech-to-speech translation, allowing participants to engage in their preferred languages and even simulating personal voice nuances. A preview is scheduled for early 2025, supporting up to nine languages and enhancing multilingual meeting accessibility. This trend has significant implications for broadcast media, where AI-driven real-time translations can streamline multilingual news coverage and enhance viewer engagement by offering instant translations, including personalized voice nuances, thereby improving both the accessibility and inclusivity of broadcasts for global audiences.

The customization of AI interpreting tools for domain-specific applications is a significant trend, particularly in sectors such as legal, medical, and sports broadcasting. Training AI models on industry-specific terminology enhances their accuracy and contextual understanding, making them more adept at handling specialized content. For instance, financial institutions and legal firms are leveraging custom translation engines equipped with compliance terminology to manage risk reports and contracts with greater precision (Guildhawk, 2025). In the realm of sports broadcasting, AI-driven tools like Ai-Media's LEXI have been developed to recognize and accurately translate sports-related vocabulary, enhancing the global viewing experience (Ai-Media, 2025).

This customization ensures that real-time interpretations and captions align with the specialized language and tone of sports commentary, improving audience engagement and accessibility. These advancements underscore the growing importance of personalized AI translation solutions tailored to specific industries, facilitating more effective and accurate communication within specialized fields (Language Insight, 2024).

The adoption of hybrid AI-human interpretation models is becoming increasingly significant in the field of interpretation, particularly in high-stakes environments like live broadcasting. These models combine the speed and efficiency of AI with the cultural sensitivity

and nuanced understanding that only human interpreters can provide. As noted in an article published on *KUDO* (2025), these hybrid models are projected to make up 40% of all interpretation services by 2025, marking a 33% year-on-year increase. This reflects the growing recognition of the importance of human expertise in interpreting, even as AI continues to evolve. By integrating AI's computational capabilities with the unique insights of human interpreters, these models offer an optimal solution for handling complex, multilingual content across diverse fields. Similarly, as highlighted by Wong (2025), a co-founder of *CoFluent AI*, such hybrid approaches are expected to become crucial for businesses aiming to navigate multilingual markets, where both linguistic precision and cultural relevance are paramount. The integration of AI tools with human expertise ensures that real-time translations in media contexts, including live broadcasts, can meet the dual demands of speed and cultural appropriateness, making hybrid models an essential asset in the broadcast industry.

Collectively, aforesaid examples of developments indicate a trend toward personalized and context-aware translation solutions. The fusion of AI capabilities with human expertise is not merely enhancing the efficiency of S2ST systems but also ensuring that translations are culturally and contextually appropriate, thereby meeting the diverse needs of global communication. These trends indicate that AI-assisted interpreting is expanding its role in broadcast media yet remains a supplement rather than a replacement for professional interpreters. Understanding these emerging trends is vital for interpreting professionals and their evolving practices, in order to navigate the changing landscape, ensuring that human expertise remains at the core of high-quality multilingual communication.

By integrating AI tools with human expertise, the industry is poised to achieve a new level of multilingual communication in broadcast media — one that balances speed, precision, and cultural relevance. These innovations reflect the growing importance of hybrid models and domain-specific customizations, ensuring that interpretations meet the diverse needs of global audiences while supporting the essential role of human interpreters. Given the rapid advancements in AI and its integration into the field of translation and interpreting, it is crucial, however, not only to stay informed about emerging tools and technological trends but also to critically assess their limitations.

1.3.2. Balancing automation and human expertise

The rapid advancement of AI-driven tools in interpreting has sparked both enthusiasm and apprehension among involved professionals. On the one hand, aforementioned innovations promise enhanced speed, accessibility, and productivity, leading to a greater performance. On the other hand, concerns persist about whether these technologies might ultimately replace human interpreters, eroding the depth and precision that only human cognition can provide. However, an approach of framing automation and human expertise as opposing forces creates a false dichotomy, which misrepresents their potential synergy. Rather than a competition, the key to the future of interpreting lies in a symbiotic balance: leveraging AI's computational power while preserving the nuanced, context-aware, and culturally sensitive capabilities of human interpreters. Present chapter explores this critical issue, drawing from recent scholarly perspectives and real-world applications to illustrate how a collaborative dynamic between human expertise and AI-driven tools is not just possible, but essential, for the future of interpreting.

A truly effective interpreting model is not built on exclusion but on collaboration. Hybrid intelligence, which integrates AI tools into human workflows, presents a paradigm where automation enhances, rather than diminishes, the role of professional interpreters. Hybrid interpreting models, which combine the strengths of both human expertise and AI-driven tools, represent a promising solution in high-demand environments. Rather than replacing human interpreters, these models enhance their capabilities by providing real-time support, such as ASR and NMT, which can process large volumes of speech or text rapidly and with increasing accuracy. In high-demand environments such as live broadcasts, international conferences, and diplomatic summits, interpreters must navigate complex linguistic and cultural landscapes in real time. AI-driven support systems can alleviate mechanical burdens — such as rapid transcription, terminology retrieval, and preliminary translation — allowing human experts to focus on the subtleties of meaning, intent, and tone.

Järvelä et. al (2025) propose that hybrid intelligence (HI), which combines human cognitive abilities with artificial intelligence, can enhance learning and decision-making processes. They argue that while AI excels in processing large datasets, it lacks the social and emotional intelligence inherent to humans. Therefore, a coevolutionary approach, where humans and AI learn from and adapt to each other, can lead to more effective outcomes. In the context of interpreting, this perspective underscores the importance of integrating AI tools to

handle tasks like real-time transcription, while human interpreters focus on nuanced aspects such as cultural context and emotional tone. This collaborative dynamic ensures that the strengths of both AI and human intelligence are leveraged, leading to more accurate and culturally sensitive interpretations.

By handling repetitive or less complex tasks, AI-powered tools free human interpreters from some of the time-consuming demands, enabling them to maintain high levels of precision and quality in more complex, high-stakes situations. Thus, hybrid models foster a collaborative dynamic that enhances efficiency without diminishing the irreplaceable role of human expertise in ensuring accuracy, cultural appropriateness, and situational adaptability in real-time interpretation.

Walther (2025) asserts that hybrid intelligence, which synergizes AI's analytical capabilities with human intuition and ethical reasoning, represents the future of collaborative work environments. She emphasizes that AI should augment human decision-making rather than replace it, highlighting the concept of *double literacy*, where individuals understand both human cognitive processes and AI mechanisms. Applying this to interpreting, fostering double literacy among interpreters can enhance their ability to effectively collaborate with AI tools. By understanding the capabilities and limitations of AI, interpreters can strategically utilize these tools to manage high-demand tasks, ensuring that AI serves as a complement to human expertise rather than a substitute.

The convergence of artificial intelligence and human expertise is reshaping the landscape of interpreting and broadcast media. By strategically integrating AI technologies, professionals can enhance efficiency while preserving the nuanced understanding that human insight provides. In the realm of broadcast media, the integration of AI has yielded mixed results. *OFF Radio Krakow's* experiment of replacing human journalists with AI-generated avatars aimed to engage younger audiences by discussing cultural and social issues. However, public backlash led to the cessation of the project after just one week. Listeners expressed dissatisfaction, finding the AI presenters less relatable and engaging compared to their human counterparts.

This outcome underscores the importance of human presence in broadcasting and highlights the potential limitations of AI in capturing the human elements essential to effective media communication. As reported by Scrimgeour in *WIRED* (2024), *The Garden Island*

newspaper in Hawaii introduced AI avatars named James and Rose to present news broadcasts. However, viewer feedback indicated discomfort with AI presenters, highlighting the importance of human connection in journalism.

The collaborative potential between AI and human interpreters is particularly evident in humanitarian contexts, where access to accurate and contextually sensitive translation is vital. Tarjimly, a nonprofit organization supported by Google, is another notable, more successful example, which showcases this balance effectively. By leveraging data from human translation sessions, Tarjimly trains AI systems to enhance machine translations for less commonly spoken languages like Dari and Pashto, which are crucial in aiding refugees and displaced populations. Tarjimly combines a network of volunteer interpreters with AI-driven tools to offer on-demand interpretation services.

While AI plays a role in improving the speed and accessibility of translations, human interpreters ensure that cultural and contextual nuances are maintained, something that automated systems alone cannot fully capture. As Pollard notes in his article for *AP News* (2024), this combination of human oversight with AI's computational power creates a more efficient, scalable model for delivering accurate translations in high-demand, critical settings, such as refugee aid and support.

Although AI is expected to evolve, potentially complementing human expertise by enhancing speed and efficiency, it is unlikely to fully replace the human touch required for accuracy, cultural sensitivity, and emotional resonance in communication. Thus, while AI tools can serve as valuable aids, translators remain indispensable in ensuring the reliability and integrity of translations in live, dynamic environments. To achieve this equilibrium, we must shift the discourse from replacement to augmentation. The evolving landscape of interpreting suggests that a collaborative approach, wherein AI tools augment human expertise, holds significant promise. By leveraging AI for tasks such as preliminary translations and terminology management, human interpreters can focus on delivering nuanced and culturally sensitive interpretations. This synergy not only enhances efficiency but also ensures the preservation of the depth and precision that only human cognition can provide, where both elements complement one another to optimize performance without compromising the integrity of the interpreting process.

1.3.3. Ethical and professional implications

Having previously examined and discussed the opportunities that AI-assisted services currently provide and aim to provide in the future, it is similarly crucial to acknowledge the implications they bring along. Technological advancements present a spectrum of ethical and professional challenges that warrant thorough examination, specifically in the context of interpreting. As AI tools become more prevalent in live broadcast settings, issues such as autonomy, bias, transparency, accountability, job security, and data privacy emerge as critical focal points.

A valuable reference point in this discussion is the SAFE-AI Task Force, developed by the National Council on Interpreting in Health Care (2024), which offers a comprehensive framework outlining essential sociolinguistic criteria for the ethical development and deployment of AI in interpreting. It outlines five guiding principles — **accountability to end-users**, **improvement of safety and well-being**, **transparency**, **clear responsibility**, and **AI as a complementary tool** — that collectively promote ethical integration of AI technologies while safeguarding the interpreting profession.

These principles are applicable across both spoken and sign language contexts and are designed to ensure that AI augments rather than undermines human agency and professional integrity. This guidance serves as a reference for all stakeholders within the interpreting profession and is applicable across diverse working environments. By getting familiar with these principles, present chapter aims to provide a comprehensive understanding of the ethical and professional dimensions of AI in interpreting. It offers insights into how stakeholders can navigate the evolving landscape responsibly, ensuring that AI technologies enhance the quality and accessibility of interpreting services while upholding ethical standards and professional integrity.

One of the central concerns appearing in the given professional field is a discussion on balance between ***autonomy*** and ***dependency*** (Beauchamp & Childress, 2009). Although these terms originate in the domain of bioethics, they have since evolved into a broader ethical discourse and are now widely applied to discussions of professional ethics across various fields – for instance, law, journalism, and interpreting. Primarily autonomy and dependency served to address the rights of patients to make informed, voluntary decisions about their medical care. In the interpreting profession, autonomy can refer to the particularly important capacity to act

as an active agent who makes rapid, context-sensitive decisions in real time. Wadensjö (1998) frames interpreting not as passive language transfer but as an interactive and highly responsive process, placing the interpreter at the centre of dynamic communicative events. Similarly, Lee (2009) highlights the interpreter's responsibility to balance fidelity and discretion, particularly in legal contexts, which further underscores the ethical weight of autonomous decision-making.

In live broadcast interpreting, where interpreters must respond spontaneously to unpredictable speech, these decision-making responsibilities are even more intensified. The growing integration of AI tools into interpreting workflows, while offering assistance with aspects such as speed and terminology, introduces subtle risk of dependency. According to Mittelstadt et al. (2016), algorithmic systems can reshape professional roles by gradually shifting authority from human experts to automated processes – thus potentially diminishing human autonomy. In interpreting, this could lead to a scenario where professionals begin to defer to machine-generated suggestions, rather than relying on their own experience and judgment.

Another pressing ethical concern in the application of AI to real-time language tasks is the issue of **bias** — how these systems may reinforce or exacerbate existing social inequalities through their outputs. The concerns regarding the ethical implications of AI systems in language processing — particularly when applied in sensitive, real-time contexts like live interpreting — have been raised by numerous scholars. A prominent example is the critical paper by Emily Bender et al. (2021), named "*On the Dangers of Stochastic Parrots"*, which emphasizes the risks associated with training large language models (LLMs) without a thorough consideration of their ethical, societal, and environmental impacts. Bender and colleagues argue that such systems often rely on massive, opaque datasets scraped from the internet, which can reproduce or amplify existing societal biases, marginalize underrepresented groups, and raise serious questions about authorship, consent, and accountability. In the context of live interpreting, these concerns are further magnified, as the real-time nature of the task leaves little room for oversight or correction, potentially resulting in the unfiltered dissemination of biased or harmful content. Furthermore, the authors highlight the tendency of LLMs to generate fluent but factually unreliable or contextually inappropriate output, which can undermine trust and accuracy in high-stakes environments such as news broadcasting or political discourse.

The increasing use of AI tools has sparked yet another widespread concerns – this time regarding *technological unemployment* – a term which refers to the loss of jobs caused by technological innovation, where machines or automation replace human labour in certain tasks or industries (Frey & Osborne, 2017). This term has become particularly relevant in discussions of AI, as advancements in automation raise concerns about the displacement of human workers in various fields, including interpreting. Such a rapid advancement of AI-powered technologies, which continue to reach new levels of sophistication almost monthly, has left professionals in the interpreting field increasingly concerned about their future **job security** and the **risk of** potential **displacement**.

According to a large-scale perception study commissioned by the Interpreting SAFE-AI Task Force, only 1% of practicing interpreters have extensively tested AI tools, with 69% of those rating results as poor or unacceptable. Notably, 47% of interpreters surveyed believe that automated interpreting will never achieve the accuracy and contextual sensitivity of qualified professionals, although 44% still see the potential for improvement over time (Pielmeier, 2023). These mixed perceptions reveal a tension between the possibilities and limitations of AI in live interpreting, especially in high-stakes contexts where, as noted in a professional article published by *Abalingua* (2025) – a recognized company in the field of interpretation – "*A single misinterpreted phrase can lead to miscommunication, financial losses, or even international conflicts*."

Further evidence from a mixed-methods study conducted in Cameron underscores the dual nature of AI's integration into interpreting. While 95,1% of conference interpreters acknowledged usefulness of AI and 85,4% expressed willingness to adopt AI-powered tools, nearly all respondents (97,6%) raised concerns regarding cultural nuance, data privacy and ethical implications (Ebenye Kanhatchop, Dougophe & Lum, 2025). These findings confirm that although interpreters increasingly recognize AI's utility in boosting productivity and supporting preparation processes (e.g., terminology management and real-time transcription), they also view it as insufficient in handling core professional values such as cultural competence, emotional intelligence, and human connection — all indispensable in sensitive or complex broadcast scenarios.

Given these limitations, the current consensus in the field favours a collaborative future in which AI serves as an assistive, rather than substitutive, tool. Respondents in both studies consistently emphasized the importance of **continuous professional development** as the key

strategy for adapting to the evolving technological landscape. In the Cameroonian study, 95.1% of interpreters identified lifelong learning as critical, along with acquiring knowledge about AI tools (85.4%), **collaborating** with AI developers (36.6%), and **customizing tools** for context-specific use (34.1%) (Ebenye Kanhatchop, Dougophe & Lum, 2025). As Pielmeier (2023) similarly concludes, the central question is not whether AI will replace human interpreters but when and how it can be safely and ethically integrated to augment their work. Therefore, interpreters must embrace continuous upskilling to stay relevant and retain their professional agency in a hybrid human-machine future.

Thus, rather than replacing interpreters, AI tools are more likely to transform the profession, creating a demand for hybrid skill sets that include technological literacy. Consequently, for the fruitful and sustainable development of the interpreting profession, it is essential to recognize that the integration of AI must not occur in isolation from established professional norms and ethical frameworks. Only by upholding principles such as transparency, accountability, data protection, and interpreter autonomy can AI technologies serve to enhance – rather than replace – human expertise, while preserving the quality, accuracy, and human-centred nature of interpreting. Despite the immense potential of AI-powered assistance, its ethical implementation must align closely with the core values and long-standing standards of the profession.

2. Aims and of the thesis and methodology of research

The phenomenon of real-time interpretation in live broadcast media represents a dynamic intersection of language, performance, and immediacy. As explored in the preceding chapter, interpreters working in such environments must operate within intense time constraints, under constant cognitive and linguistic workloads, while preserving the communicative intent, stylistic features, and cultural nuances of the source message. This evolving reality also highlights the necessity for interpreters to continuously adapt to technological advancements, acquiring new digital competencies and developing a readiness to work alongside emerging tools in order to sustain professional standards and remain relevant in the field. The first chapter of present thesis outlines the key theoretical foundations of this field, examining the definitions of quality and accuracy, the mental, strategic, and professional expertise required of interpreters, and the emerging impact of AI-assisted technologies on interpreting workflows and standards.

In light of named findings, the empirical part of this thesis builds upon the theoretical discussions to investigate how these issues manifest in real-world practice. Specifically, it aims to understand how professional interpreters working in the given area perceive and respond to the challenges posed by live interpreting conditions and to the ongoing integration of AI-assisted tools. While much of the existing literature remains either highly conceptual or technologically oriented, this study seeks to place emphasis on the human voice and perspective, foregrounding the added value of human interpreters, their professional strategies, adaptive skills, and reflections on quality and performance. Additionally, we seek to examine how AI technologies are currently influencing — and potentially redefining — the interpreter's role in media settings. Hence, the research questions aim not just to describe the state of the profession but to understand how human and machine intelligences interact — and what that means for the future of interpreting in the media.

To address the defined research objectives, this thesis employs a qualitative research design, incorporating both semi-structured interviews with professional interpreters and the systematic analysis of public professional discourse. This dual-method approach is selected for its ability to generate rich, contextualized insight, given the inherently situational and multifaceted nature of a. researched domain. The features of this professional field are best captured through qualitative inquiry, which allows for flexibility, openness, and a grounded

understanding of the interpreter's lived experience. Thus, the empirical part of this thesis is guided by the following four research questions:

1. **What specific cognitive, linguistic, and professional challenges do interpreters face in real-time live broadcast contexts?** – Rooted in Chapters 1.1.3. and 1.2., this question aims to reveal the real-time demands placed on interpreters working in live, unpredictable environments.
2. **How do interpreters prepare for live interpreting assignments in media, and what strategies do they use to maintain quality under pressure? –** Drawing from Section 1.2, this question examines the preparatory, procedural, and strategic frameworks employed by interpreters to ensure clarity, accuracy, and performance under stress.
3. **How is the integration of AI tools affecting interpreter workflow, autonomy, and decision-making in live settings?** – Based on the analysis in Chapter 1.3, this question investigates how AI-assisted tools are being incorporated into professional practice, and how this affects interpreters' agency, confidence, and workflow.
4. **To what extent can AI complement – rather than replace – human expertise in the context of high-stakes live broadcast interpreting?** – Arising from the broader discourse in Chapter 1.3, this question addresses the nuanced relationship between human and machine capabilities, seeking to identify the boundaries and synergies between the two. This objective seeks to identify necessary improvements in training programs to better prepare interpreters for working with AI tools, and to explore ways in which AI and human collaboration can be optimized for maximum efficiency and effectiveness in real-time translation.

2.1. Research design: data collection and analysis methods

Present thesis adopts a qualitative research methodology to investigate the multifaceted and evolving practice of interpreting during real-time live broadcasts — a field that, while gaining increasing visibility, remains underexplored in both translation studies and communication-oriented linguistics. The qualitative paradigm is particularly appropriate for this inquiry, as it emphasizes subjective experience, contextual depth, and the capacity to capture nuanced phenomena that are not readily quantifiable. In the case of live interpreting, such phenomena include the interplay between cognitive strain, ethical judgment, speaker unpredictability, and technological mediation. Thus, the research is anchored in a dual-source design, integrating two complementary forms of data: **primary qualitative data**, obtained

through semi-structured interviews with professional interpreters, which offer individual, practice-based insights and allow for in-depth exploration of the interpreter's perspective within real broadcast environments. **Secondary qualitative data**, derived from publicly available professional discourse — namely, recorded webinars, expert panel discussions, institutional presentations, and live demonstrations. These materials, produced by recognized organizations and professionals, serve as a form of mediated practitioner commentary, representing a broader community or institutional perspective.

This two-pronged strategy is intended to triangulate findings across multiple vantage points: personal, experiential accounts from active professionals, and wider collective discourses that reflect ongoing developments, debates, and innovations within the interpreting field. By combining these sources, the research design not only compensates for potential access limitations but also enriches the analytical depth, allowing the thesis to explore the subject matter from both micro- and meso-level angles. The following sections of this chapter describe in detail the two data collection streams and the methodological procedures used to analyse them.

2.1.1. Primary qualitative data: interview protocol

Interviews were conducted with practicing interpreters who have demonstrable experience in live or broadcast interpreting. The aim was to gather individual, experience-based perspectives on the practical, cognitive, and ethical demands of the profession. The interviews followed a semi-structured format, allowing for a consistent thematic framework across respondents while leaving room for open-ended elaboration and narrative insight. The interviewees were selected based on their professional relevance to the topic, diversity of experience, and accessibility within the given research timeframe. The sample of interviewed interpreters includes:

Kamila Kamala Galijuš is an emerging interpreter and translator with a master's degree in Translation Studies from Prešov University in Slovakia. She has nearly three years of experience in the field, working with both international and domestic audiences. Kamila specializes in interpreting between Slovak and English and is currently employed as a Broadcast Journalist at Radio Slovakia International (RSI), the Slovak public service broadcaster STV. She has gained practical experience in live broadcast interpretation, sharing insights into the unique challenges and dynamics of interpreting for live events. As she

continues to develop her career, Kamila is eager to refine her expertise and contribute further to the field of live broadcast interpretation.

Cecilia Pozzi is an experienced interpreter and translator with nearly 30 years of practice, specializing in Italian, English, and Russian. Her expertise spans various sectors, including pharmaceuticals, yachting, and geopolitics. Cecilia has extensive experience in simultaneous, consecutive, and liaison interpreting. In recent years, Cecilia has expanded her practice to live TV broadcast interpretation, particularly in the context of current events, such as Russia's full-scale invasion of Ukraine. She is also a member of the Italian Association of Translators and Interpreters (AITI) and has taught at the University of Bologna and the University of Genoa.

Ayman Alali is a conference and broadcast interpreter with over 10 years of experience in live television and multilingual event interpretation. Specializing in Arabic and English, Ayman has worked with major broadcasters, including BBC and Alaraby TV, providing real-time interpretation for high-stakes, live broadcasts such as news bulletins and interviews. His expertise spans simultaneous and consecutive interpreting, with a particular focus on live media, where cognitive and linguistic challenges are prevalent. Ayman has significant experience in managing interpreter teams and using platforms like Kudo and Zoom for remote events. His work highlights the pressures of maintaining accuracy and clarity in real-time settings, directly aligning with the cognitive and professional challenges discussed in this thesis. His role also reflects the evolving interaction between human expertise and emerging technologies, such as AI-assisted tools in broadcast interpreting.

Each interview lasted approximately 30-45 minutes and was conducted in English via online platforms. Interviews have been recorded with participant consent, transcribed using an in-built SR tool, further proofread and corrected manually, and consequently thematically coded based on the four guiding research questions **(RQs)**.

2.1.2. Secondary qualitative data: public professional discourse

To triangulate the primary interview data, this chapter integrates systematically analysed secondary qualitative input drawn from publicly accessible expert commentaries and professional webinars. These materials — ranging from panel discussions and solo lectures to comparative live demos — are treated as documented expert discourse that reflects both

individual practice and institutional perspectives. This approach complements the interview findings by illustrating how professional interpreters and technologists conceptualize, critique, and respond to the evolving dynamics of real-time interpreting in the age of artificial intelligence.

All selected materials were coded and analysed thematically using the same framework as the interviews, aligned with the four guiding research questions of the thesis. These concern (1) cognitive, linguistic, and professional challenges; (2) preparation and quality assurance strategies; (3) the effects of AI integration on interpreter autonomy and workflow; and (4) the complementarity or threat posed by AI to human expertise. The expert insights presented here span high-level institutional, academic, and practitioner perspectives.

Based on credibility, relevance, and professional contribution to interpreting practice, the four following cases were selected for the analysis:

Case No. 1: "*Pro Interpreters vs. AI Challenge*".

This professionally produced segment by *WIRED*, a renowned American magazine and digital media platform specializing in the impact of emerging technologies on culture, politics, and innovation, was published on YouTube in June 2023. As part of its ongoing exploration of artificial intelligence and its societal implications, *WIRED* presents a structured comparative performance test between professional human interpreters – Barry Slaughter Olsen and Walter Krochma – and KUDO, an AI-powered real-time speech translation tool. The task tests not only speed and linguistic accuracy, but also the capacity to capture nuance, tone, and emotion in real-time interpretation.

Barry Slaughter Olsen is a professor of translation and interpretation at the Monterey Institute and a long-standing member of AIIC. With decades of experience and involvement in interpreter training worldwide, he brings institutional credibility to the comparison. Walter Krochma, a Federally Certified Court Interpreter in the U.S., has interpreted for high-profile legal cases and is a seasoned voice actor, adding unique perspective from both legal and performative domains. The KUDO system represents a cutting-edge, real-time AI speech translation solution, developed by a New York–based team of language and conferencing professionals. The video probes the system's capacity to deliver high-quality simultaneous interpreting, offering an empirical touchpoint highly relevant to this research's focus on human-AI dynamics in live broadcast contexts.

This case contributes directly to evaluating real-time cognitive and linguistic challenges **(RQ1)**, performance strategies and stress response **(RQ2)**, and the comparative potential of AI in replacing or supporting human expertise **(RQ3 & RQ4)**.

Case No. 2: Joshua Goldsmith on "*AI for Interpreters*".

Published on Lourdes de Rioja's YouTube channel in May 2023, this video features a solo expert commentary by Joshua Goldsmith, an UN- and EU-accredited interpreter and founder of the *techforword* initiative. Goldsmith, who works across five languages and is an active member of AIIC, discusses the growing role of artificial intelligence in interpreter workflows — particularly in the preparation phase of live assignments. Goldsmith offers a detailed demonstration of two tools he finds particularly impactful: Readwise Reader and Notion AI, both used to streamline terminology extraction, content familiarization, and multilingual glossary creation.

This particular video was curated and published by Lourdes de Rioja, an AIIC conference interpreter based in Brussels with extensive institutional experience (European Commission, European Parliament, and Court of Justice). In addition to her interpreting work, de Rioja is known for her videographic contributions to the profession, producing insightful visual resources that document interpreter practice and promote professional discourse.

The video's relevance spans all core research questions: it illuminates preparation strategies under pressure **(RQ2)**, reflects on changes to interpreter autonomy and workflow due to AI **(RQ3)**, and frames AI as an enhancer—not a replacement—of human expertise in high-stakes contexts **(RQ4)**. Its focus on professional ethics, critical assessment of tools, and applied experience also contribute to understanding cognitive and professional challenges interpreters face when preparing for real-time assignments **(RQ1)**.

Case No. 3: "*Artificial Intelligence & Interpreting in the Future. Discussion*".

Published on the AIIC Interpreters official YouTube channel, this webinar — originally held in January 2021 — documents a high-level panel discussion on the future of interpreting in the age of artificial intelligence. The event was part of a wider series by AIIC UK & Ireland, a regional branch of the International Association of Conference Interpreters, the world's leading professional body for interpreters. The panel gathered experts from across institutional,

private, and technological sectors to reflect on the perceived threats and opportunities presented by AI in professional interpreting.

Participants included Thomas Jayes (European Parliament), Antonio Paoletti (International Maritime Organization, UN), and Naomi Bowman (CEO, DS-Interpretation, Inc.), alongside AI researchers Dr Jan Niehues (University of Maastricht) and Dr William Lewis (University of Washington, formerly Microsoft). The session was moderated by Monika Kokoszycka of AIIC UK & Ireland, ensuring a professional discourse rooted in both policy and practice.

The discussion interrogates the real versus perceived threats posed by AI, with particular focus on the growing tendency toward innovative solutions, client expectations, and the critical importance of professional adaptability. Speakers emphasized that AI is not inherently a threat, but that the greater risk lies in the potential for underutilizing or misapplying human expertise in multilingual communication settings. Panellists also addressed client confusion between AI and human services, the risk of declining interpretation demand, and the need to remain visible, tech-savvy, and flexible as a profession.

This case is particularly relevant to **RQ1** (cognitive and professional challenges in live broadcast contexts), **RQ3** (the integration of AI tools into interpreter workflows), and **RQ4** (AI as a complement — not a substitute — for human interpreters). Additionally, it touches on broader systemic concerns, such as market trends, ethics, and professional advocacy, thus offering a layered contribution to your research's triangulated findings.

Case No. 4: "*AI for Interpreter Support and Training*".

This case is drawn from a webinar published on the AIIC Interpreters YouTube channel as part of the "*Artificial Intelligence and the Interpreter*" series. The session, held in December 2020, features Dr Ildikó Horváth, a leading figure in interpreting education and research. Dr Horváth is Associate Professor and Director of the Institute of Language Mediation at ELTE University, Budapest, and currently serves as President of the European Masters in Conference Interpreting (EMCI) consortium.

In her presentation, Horváth surveys the evolving role of AI-based tools in interpreter training and practice, particularly focusing on terminology management systems that enhance preparation, live performance, and post-event consolidation. In her webinar, Horváth (2020)

cited Feldmann's (2020) classification of artificial intelligence into two categories: *general* AI, characterized by reasoning, planning, and creativity; and *functional* AI, which refers to task-specific tools. This distinction provides a useful framework for understanding the application of current digital solutions — such as automatic speech recognition (ASR), machine translation (MT), and speech-to-text (S2T) — that are increasingly integrated into interpreter workflows. She also introduces pioneering concepts like *Artificial Booth Mate* and *Interpreting 4.0*, which represent hybrid tools designed to reduce cognitive load, improve accuracy, and support decision-making in high-pressure interpreting contexts.

Horváth's extensive research and leadership within the EMCI framework, including training initiatives and publications (e.g. *The Role of Technology in Conference Interpreter Training*, 2020), reinforce the scholarly and professional validity of the presented tools and trends. This webinar is particularly pertinent to **RQ2** (preparation and coping strategies), **RQ3** (AI's integration into workflow and autonomy), and **RQ4** (the potential of AI to support rather than supplant human expertise), offering grounded insight into how educational institutions are adapting to technological shifts in the profession.

2.1.3. Limitations and ethical considerations

Every research design faces contextual constraints that shape its scope, methodological decisions, and the interpretability of its findings. This study, while guided by a commitment to methodological transparency and scholarly rigour, is no exception.

One of the primary limitations was the restricted access to direct observation of real-time live broadcast interpreting, due in part to the confidential or closed nature of such settings. Institutional gatekeeping and a lack of public archives of interpreted live events significantly constrained opportunities for first-hand, in-situ data collection. As a result, the study draws upon secondary qualitative data, including publicly accessible expert webinars, recorded panel discussions, and video case studies. These materials, although not recorded for research purposes, offer a valuable and insightful corpus for understanding current discourse around AI integration, interpreter workflow, and professional challenges in media settings.

In addition, limited participant availability for interviews posed a further constraint. While outreach efforts were made to engage practicing interpreters working with live broadcasts, the response rate was modest, largely due to scheduling conflicts and

confidentiality clauses in contracts. Nevertheless, the inclusion of at least one expert interview and the triangulation with rich video-based commentary allows for a balanced interpretation of both lived experience and professional positioning.

From an ethical standpoint, all interviews were conducted in line with principles of informed consent, anonymity, and voluntary participation. Interviewees were briefed on the purpose of the study, its academic context, and their right to withdraw at any point. Given that secondary video data were sourced from public platforms (e.g., YouTube), no additional ethical approval was necessary; however, appropriate attribution and citation are used throughout to acknowledge the original creators and respect intellectual property rights. It should also be noted that secondary video content may contain performance elements, edited formats, or scripted segments. As such, while they are treated as expert-informed materials, they are critically evaluated with awareness of their communicative framing.

In summary, given the access limitations to direct observation, the limited availability of interview participants, and the lack of contacts received, publicly available recorded case studies and expert webinars were selected as key sources for qualitative analysis. These materials provided valuable insights into interpreting performance, technological integration, and evolving professional attitudes across a variety of live and simulated media contexts.

3. Results of the thesis

This section presents and analyses the primary data collected through expert interviews with professional interpreters working in or closely connected to the live media broadcast context. As a cornerstone of this thesis's empirical design, the interviews provide insider perspectives on the evolving demands, practices, and challenges of interpreting in high-stakes environments increasingly influenced by AI tools. Conducted interviews offer critical insight into the practical dimensions of interpreter cognition, preparation workflows, ethical considerations, and perceptions of technological transformation.

By exploring these lived experiences through the lens of the study's core research questions, this section uncovers not only the technical realities of live interpreting, but also the personal, cognitive, and professional pressures shaping interpreter identity and responsibility in the digital era. The findings are organized case-by-case, with each interview treated as a unique contribution to the field dialogue. Responses have been analysed thematically, with close attention to recurring concerns, strategies, and expectations across cases.

To ensure clarity and systematic analysis, the results of the empirical research are presented in a thematically organized format guided by the central research questions of this thesis. Each section draws on insights from the conducted expert interviews and the curated expert video commentaries. Outtakes, reflections, and analytical excerpts are explicitly linked to the corresponding research question by means of parenthetical references (e.g., ***RQ1***, ***RQ3***), allowing for transparent navigation of the findings.

This structure enables a comparative, question-driven synthesis across multiple sources, reinforcing the triangulation of qualitative data. Full transcripts of the conducted interviews are provided in the **Attachments** section of the thesis for reference and verification.

3.1. Interview results: interpreter perspective

The first interview (Attachment no. 1) of present research has been conducted with **Kamila Kamala Galijuš**, a recent graduate of translation and interpreting studies, bringing a distinct lens to the discussion: that of a young practitioner of a new generation negotiating the thresholds of training and real-world responsibility. Her experiences in interpreting at live broadcasted events, although limited in number, are rich in nuance, challenge, and situational insight. These include interpreting at the Roma Spirit gala, a conference on psycholinguistics,

and a high-stakes ministerial conference on carbon emissions – both broadcasted online. Together, these cases paint a vivid picture of the evolving expectations and challenges faced by interpreters entering media-facing, high-pressure settings. Galijuš's account, layered with honesty and self-reflection, provides a rich field of data closely aligned with the four guiding research questions framing this study.

When responding to the **cognitive** and **contextual challenges (RQ1)** of real-time interpreting, particularly in events broadcasted or streamed live, Galijuš provides a compelling reflection on the unstructured, unpredictable nature of such environments. Unlike traditional conference interpreting, where the parameters of the communicative situation are typically controlled, media-based or high-visibility assignments tend to involve what she referred to as an "*unexpected chaos*."

"*I interpreted a discussion twice...the first time was a very professional and nice discussion… but the second time? That was like, if there is an interpreting hell, that was it,*" (Galijuš, 2025).

Kamila's experience points to several **cognitive** and **linguistic pressures (RQ1)** that are amplified in media and live-streamed interpreting environments. The unpredictability of real-time broadcast discourse is evident throughout her accounts. In recalling the Roma Spirit event, she explains that although she was provided with a script in advance,

"*It is one thing that you have on the script and another when the cameras are rolling...and then the hosts also say whatever comes first to their mind*," (Galijuš, 2025).

The tension between scripted and **spontaneous speech (RQ1)** underscores a core professional challenge in broadcast contexts: the simultaneous demand for preparedness and adaptability. This was particularly evident during award ceremonies where emotional responses, unscripted remarks, and multilingual contributions complicated the live environment. As Kamila reflects,

"*The rest of the evening was a surprise after a surprise... some people cried also... so, your listeners don't really hear anything. But if someone is sobbing on stage, what do you say?*" (Galijuš, 2025).

These moments highlight the **emotional volatility (RQ1)** interpreters must navigate — an element rarely addressed in formal training but central to broadcast work. These moments require interpreters to not only translate words but also capture the essence of unspoken communication, including tone and emotional inflection. This experience emphasizes the **human aspect (RQ4)** of interpreting, which cannot be entirely replicated by machines.

Furthermore, she emphasizes how **multilingual complexity (RQ1)** adds another layer of unpredictability. Award presenters from various countries often delivered spontaneous speeches, sometimes in languages not understood by the interpreter. "*If someone spoke in Polish*," she notes, "*and neither I nor my colleague spoke Polish, then we just said, 'speaking in Polish*', (Galijuš, 2025). Her candid recounting reveals a professional humility and realism crucial for navigating the constraints of live multilingual media events.

Another striking example of the **linguistic tension (RQ1)** in broadcasted interpreting arises from Kamila's experience interpreting at a psycholinguistics conference. The content focused on early speech acquisition in children across multiple languages, with the speaker referencing Turkish, Romani, and Bulgarian — languages outside her active working repertoire. Although the speaker was originally using the language known to Kamila, the presence of Romani expressions mixed with topic-specific terms posed a unique interpretive dilemma:

"*Before interpreting at the psycholinguistics conference, I created a glossary because the topic was development of speech in multilingual children, with Romani, Turkish, and Bulgarian examples… even though I am Romani, I do not speak the language fluently… I was eyeing the Romani people in the audience like, am I doing this right?*" (Galijuš, 2025).

This moment encapsulates the kind of **linguistic uncertainty** and **identity-related pressure (RQ1)** interpreters may face in broadcast or semi-public contexts, where cultural representation becomes personally resonant. Moreover, the presence of a live audience and the permanence of a recorded stream intensified the pressure for accuracy and cultural sensitivity. Her approach — openly inviting correction from those present — reveals a reflexive and ethical positioning that underscores the emotional and professional self-monitoring inherent to live interpreting settings.

What stands out in Kamila's account is the emotional and ethical gravity of her position in chaotic moments. At a forestry conference organized by the Slovak Ministry of Agriculture,

a heated debate escalated beyond linguistic mediation. Delegates interrupted each other, raised their voices, and overwhelmed the channel. "*We just stopped interpreting*," she recalls.

"*People were speaking altogether, like three or four people at a time... if they wanted a fist fight, that's fine, but I am not going to interpret for a ring,*" (Galijuš, 2025).

Her decision reflects the **limits of interpreter agency (RQ1)** in high-conflict broadcast settings — a dimension that theoretical models often overlook. This vivid showcase demonstrates the invisible labour that interpreters perform in settings where professional decorum collapses and the communicative contract becomes untenable. Importantly, such live settings render the interpreter not merely a linguistic conduit, but a **crisis manager** and **ethical agent (RQ1)**, forced to judge when silence, rather than continuation, preserves both clarity and professional dignity.

In terms of **preparation strategies (RQ2)**, Kamila displays a thoughtful and critical approach. Glossaries remain central to her method, but she foregrounds active preparation as both a **cognitive** and **mnemonic practice**:

"*If you have a machine create your glossary... then what good is that glossary? You do not have the experience of typing those words and remembering their places*," **(RQ3)** (Galijuš, 2025).

Her preference for using an iPad, motivated by ecological concerns and flexibility, signals a generational shift in tools, but also a strong sense of intentionality in their use. Even amidst technical irregularities and poor booth conditions (e.g. separated booths where she and her colleague had to signal each other via emojis in a Messenger application), she demonstrates resilience, adapting to working conditions with minimal complaint yet sharp observation.

Kamila's responses offer a vivid insight into the preparation strategies adopted by interpreters navigating unpredictable media and hybrid event environments. Her approach demonstrates a strong **balance between proactive preparation and on-the-spot adaptability (RQ2)**. Prior to assignments, she consistently engages in speaker-based research and topic familiarization. Additionally, she describes a physical grounding technique as an **on-the-spot strategy (RQ2)** to regain composure and confidence — blending elements of performance psychology with interpreter presence, a dimension often overlooked in conventional interpreter training.

Kamila also emphasizes that no amount of classroom-based preparation can substitute for the unpredictability and immediacy of real-world broadcast interpreting. "*You cannot be taught this in class… the experience is something you have to live,*" she notes — articulating a core tension between formal training and the on-the-ground demands of interpreting. This assertion reinforces a recurring insight from professional discourse: that media-based and live-event contexts place interpreters in conditions that defy simulation. **Emotional unpredictability, speaker spontaneity, ambient distractions, and unstable technological settings (RQ1)** are all elements that rarely appear in training modules, yet they fundamentally shape interpreter performance.

Kamila's insights on **artificial intelligence tools** and their incorporation in professional practices **(RQ3)** reveal a **decisive scepticism** rooted in both practical experience and conceptual clarity. Kamila does not reject technology outright. She, for instance, values DeepL, Glosbe, and the Slovak National Corpus, drawing a clear line between **tools that assist the human** and **tools that aim to replace the human altogether (RQ4)**.

From her perspective, AI remains fundamentally misaligned with the real-time cognitive agility required in live interpreting, thus she distances herself from the adoption of more complex systems. For Galijuš, the verdict is unambiguous: "*AI is just a machine filled with words and statistics... it doesn't think, it just counts, and it counts wrongly.*" This reflects a central concern echoed across the interpreting profession — that language processing is not merely statistical, but inherently inferential, context-sensitive, and human-led **(RQ4)**.

Her broader philosophy is distilled in a deceptively simple line: "*No tool will replace a good dictionary. Whether it's 1,000 pages or two tabs in your browser.*" This statement captures both a generational pragmatism and a deep understanding of the cognitive processes that shape interpreter performance. Her trust remains not in AI-generated glossaries, but in manually curated and cognitively internalized lexical preparation, reinforcing the view that **interpreters must remain in control of the interpretive process** from preparation to delivery **(RQ3, RQ4)**.

Her stance on whether AI can **complement human expertise (RQ4)** is ultimately emphatic: "*interpreting as it is — is inconvenient. It comes with the job. But I don't think we need better AI-tools. We need better microphones, better headsets, better booths.*" This seemingly simple statement points to a broader argument: that innovation in this field should

not aim to replicate cognition but to amplify working conditions. Kamila's perspective, thus, reframes the debate on technological innovation. While much discourse on AI focuses on expanding machine capabilities, she highlights the simplicity of what interpreters actually need: better physical infrastructure. Her list of priorities echoes real needs often overshadowed by abstract technological promises. This pragmatic, **human-centred focus (RQ4)** disrupts narratives that position AI as the logical next step in interpreter support, arguing instead for foundational improvements in working conditions.

Her insights into the **integration of AI tools (RQ3)** are especially pertinent given her academic background — Galijuš wrote her thesis on AI in literary translation. Kamila's scepticism is firm and multifaceted: she rejects AI not from ideological resistance but due to practical, linguistic, and ethical shortcomings. In the words of Galijuš herself:

"*I think that if you are a linguist, or an interpreter, or a translator, you don't trust the machine to do your job, for sure. As far as I know, neither me nor my colleagues...really use AI. Many people use it for fun, but speaking professionally—we all know—that this is a machine filled with words and probability equations,*" (Galijuš, 2025).

This view, according to Galijuš's observations, is shared by many professionals in the interpreting community, who see AI as a "trend" rather than a permanent solution **(RQ4)**.

Her critique extends to the environmental costs of AI servers and development of LLMs ("*a disaster for the environment…I would rather drink some water than use it for cooling a machine*") and to the tool's poor performance in Slavic language contexts, where models routinely confuse Slovak with Czech or Serbian, raising serious concerns about **language-specific reliability** and **regional bias** in training data **(RQ4)**. These linguistic blind spots are not minor, and particularly in live broadcast interpretation, such errors could cause serious miscommunication, especially when languages are being switched between rapidly.

From a technological standpoint, Kamila's rejection of AI integration stems less from ideological resistance and more from functional misalignment. As Galijuš herself puts it,

"*Can you imagine a tool or AI or anything that would be so powerful to interpret spoken speech the way a human interpreter can? That would require a whole brain, and we cannot program a whole brain*," (Galijuš, 2025).

Her articulation underscores a core challenge to AI adoption in live interpreting: the inability of machines to replicate human inferential logic, emotional nuance, or spontaneous adaptability — all critical in unpredictable live broadcasts.

Kamila's reflections ultimately challenge the dominant discourse around automation in interpreting. Rather than heralding AI as the next frontier, she exposes its misalignment with the profession's real-time, human-centred demands. Despite the growing capabilities of AI in areas such as machine translation and text processing, Kamila argues that interpreters should not fear the loss of their profession. As she notes, interpreting has survived the rise of machine translation tools in the past, and human expertise remains irreplaceable in complex, dynamic situations. She concludes with a sharp observation: "*Ever since we got machine translation, everyone is saying that translation and interpreting are dying jobs, and yet we persist*."

In sum, Kamila's stance affirms that while the profession evolves, the essence of interpreting — as a deeply human, context-bound, and meaning-making activity — resists full automation. Her narrative is a powerful reminder that technological enhancement must begin with the interpreter's lived reality, not abstract aspirations of machinic replacement.

The integration of technology into interpreting practices has undoubtedly changed the landscape of the profession. However, as demonstrated by Kamila's insights, the role of technology, particularly AI, remains limited. While AI tools may support interpreters in specific tasks such as glossary creation or document translation, they cannot replace the human touch that is essential for real-time, emotionally charged, and contextually sensitive interpreting. As technology continues to evolve, interpreters must remain vigilant in maintaining the high standards of their profession while adapting to new tools that enhance their capabilities without compromising the human element at the core of their work.

Her perspective, rooted in practical experience, critical distance, and generational awareness, provides a grounded counterpoint to techno-utopian narratives. It is especially powerful coming from a professional at the beginning of her career — a reminder that **the future of interpreting rests not just on tools, but on the values and voices of those stepping into the booth today (RQ4)**.

The **second interview** (Attachment no. 2) was conducted with **Cecilia Pozzi**, a freelance interpreter and translator with nearly three decades of experience in English, Russian, and Italian, as well as years of pedagogical practice teaching interpreting at the university. Her

portfolio includes interpreting across varied domains such as pharmaceuticals, geopolitics, and live television broadcast. Since 2022, Cecilia has regularly interpreted live on Italian national television in the context of Russia's full-scale invasion of Ukraine. Her reflections offer a vivid, deeply introspective, and pedagogically rich testimony of the modern interpreter's role, identity, and evolving toolkit.

Pozzi's account illustrates how live TV interpreting is marked **by intensified cognitive overload**, exacerbated by **technical disruptions**, **low audio quality**, and **absence of co-interpreter support (RQ1)**. Pozzi draws a compelling distinction between traditional conference interpreting and live television interpreting, underlining that the latter operates under significantly more **volatile and unpredictable conditions**. In contrast to the structured, turn-based flow of conference assignments — where interpreters typically work in pairs, equipped with prepared materials and scheduled speaker rotations — broadcast interpreting often demands **sudden, unscripted transitions across topics and locations (RQ1)**. For instance, she describes the abrupt shift from routine studio commentary to urgent geopolitical updates: newsrooms pivot from domestic politics to live feeds from international capitals within seconds, leaving the interpreter with mere moments to mentally adjust and deliver accurate output **(RQ1)**.

Unlike the calm rhythm of conferences, where speaker order and terminology are often known in advance, television interpreting, as noted by Pozzi, places the interpreter in a **hyper-reactive position** — constantly on alert, **adapting in real time (RQ1)**. Though surrounded by a full production team, including sound engineers and journalists, the **interpreter** paradoxically **operates in isolation**: she is solely responsible for tracking live timing, cues, and overlapping information streams, without the fallback of a booth partner **(RQ1)**. Moreover, interruptions from non-linguistic staff unaware of the interpreter's active translation, while being an unavoidable part of TV production, further complicate the process, disrupting concentration and fluency **(RQ1)**.

These descriptions shed light on **cognitive load**, **sensory overstimulation**, and **psychological resilience** required to maintain coherence in a setting where external demands often clash with the linguistic task at hand **(RQ1)**. The findings also suggest, that while preparation is essential, it must be flexible and anticipatory, capable of accommodating unpredictable inputs rather than rigid scripts. Throughout an interview with Cecilia Pozzi, live broadcast interpreting has been revealed not only as technically complex, but as **socially** and

emotionally demanding, requiring assertiveness, composure, and continuous recalibration in the face of external pressure **(RQ1)**.

Psychological pressure, too, is unique in this context **(RQ1)**. One of the most compelling aspects of Pozzi's testimony is her perspective on managing emotional and psychological challenges. Pozzi draws on her knowledge of neurolinguistic programming, linking high stress with the mental fragmentation that occurs when interpreters become hyper-aware of being perceived by peers or audiences. The **visibility of broadcast interpreting** alters the psychological landscape of performance **(RQ1)**. She recounts that the presence of a larger and often unknowable audience — colleagues, friends, or even native speakers of the source language — can fragment cognitive focus. Cecilia reflects on the psychological self-awareness and **mental multitasking** required under pressure, invoking a "CPU model" in which mental capacity is diminished by self-consciousness about performance or audience judgment. This, as noted by Pozzi herself, results in **self-monitoring spirals** that consume valuable processing capacity **(RQ1)**:

"If you start taking 10% to 'what will the audience think?'...then another 10% to 'what will my colleague think?' – then you're already down to 80% percent performance, when 100% should be concentrated on interpreting process itself," (Pozzi, 2025).

This anecdotal metaphor reinforces how live broadcast interpreting is not merely about language transfer — it is a form of **performance under intense scrutiny**. She encourages future interpreters to protect their cognitive bandwidth by focusing fully on message fidelity rather than external evaluations — a finding with both psychological and pedagogical implications.

Her reflections also highlight the emotional toll of **perfectionism in high-visibility settings**, such as interpreting heads of state on national TV **(RQ1)**. Pozzi describes grappling with **uncertainty**, **vague expression under signal loss**, and the struggle to forgive herself after **perceived underperformance** — a deeply human insight into the interpreter's inner world. Such internalized pressure diverts cognitive bandwidth from the task at hand **(RQ1)**.

Pozzi's account also reveals the **adaptive strategies** interpreters develop over time. While initially overwhelmed by visibility, she attests that repeated exposure transforms the live setting into a more **manageable routine**. Moreover, she actively teaches **stress management** and **public speaking strategies** to fellow interpreters, viewing these skills as essential

components of interpreter preparedness **(RQ2)**. This aligns with the broader need for interpreter training programs to include **performance psychology**, self-forgiveness, and **confidence-building strategies**, especially for live media contexts **(RQ2)**.

Reflecting on the earlier stages of her career, the interpreter recounts a shift in her approach to moments of uncertainty. Initially, she felt compelled to signal her own comprehension struggles to the audience — believing transparency equated to trustworthiness. "*If I didn't understand something, I almost felt I had to let the public know*," she explained, "*Because if I had a problem, they had to understand it too*." However, she later recognized that this instinct, while sincere, was not practical in live interpreting contexts. Viewers cannot infer the cause of a sudden pause or hesitation, and such disruptions may undermine the flow of communication.

Over time, she adopted what she described as a **survival mindset** — not to deceive, but to **prioritize message continuity** even in the face of ambiguity. This meant learning to navigate unclear segments with **generality** and **caution**, avoiding interpretations that might misrepresent the speaker's intent **(RQ2)**. "*You don't like it*," she admitted, "*because you know you're being vague. But you try to survive and keep going, being as faithful as you can*," (Pozzi, 2025).

Cecilia presents an exceptional **multi-level preparation strategy** for her upcoming interpreting assignments. She employs **immersive listening routines**, such as substituting entertainment audio with political speeches in target languages during daily chores — an informal but effective form of **ambient acquisition (RQ2)**.

"*While I'm cooking, I put on BBC or Russian TV channels... just to hear the intonation and the common phrases speakers use*," she said, adding that "*everyone has their favourite words and expressions — knowing them gives you a head start*," (Pozzi, 2025).

Preparation also includes intensive **speaker profiling**: watching past speeches to analyse accents, content patterns, and recurrent terminology. She also rehearses through **ambient exposure**, exercising in interpreting of occasional TV speeches she encounters in her free time **(RQ2)**.

Notably, Pozzi's terminology management system is manually built and conceptually grouped into sub-categories like military or diplomatic vocabulary, colour-coded for cognitive

association (e.g., red for war, green for negotiation). In terms of her personal preparation practice she insists on **handwritten glossaries** — a strong pedagogical stance underscoring **preparation as a somatic, intellectual, and visual practice (RQ2)**. She also puts emphasis on stress management, offering a framework of "before, during, and after" for assignment-related anxiety. Preparation is essential, but so is the interpreter's internal narrative:

"*You're not there to be the best interpreter in the world. You're there to serve, you're there to make human beings talk to each other, communicate... we're not heroes. We don't save lives. But we can make the difference*," (Pozzi, 2025).

This ethos reflects a **values-driven approach** where humility and clarity of purpose act as buffers against performance anxiety. Importantly, Pozzi does not present herself as immune to these pressures — rather, she models a **reflective, evolving professionalism that balances high standards with human fallibility**. This reframing — from performer to communicator —anchors the ethical core of interpreting in humility, empathy, and responsibility **(RQ2)**.

Cecilia Pozzi expressed cautious curiosity toward **AI integration (RQ3)**. Pozzi's engagement with AI tools remains **cautious** and **discerning**. She uses AI primarily for **pre-assignment preparation**, e.g., compiling glossaries, researching historical events, or listing key political terminology **(RQ3)**. She emphasizes AI's value in **data collection, not decision-making**. For instance, she acknowledged the value of AI-powered search functions — such as using ChatGPT to quickly list of historically important battles of Eastern Europe for upcoming political coverage — but drew a firm line at deeper automations. "*I still write my glossaries by hand*," she said. "*It helps me memorize*," (Pozzi, 2025).

She viewed speech recognition and subtitle technologies as **promising but problematic** in live scenarios, expressing concerns about **cognitive interference** and **loss of autonomy (RQ4)**. "*Cognitively, it's too much. You already visualize what you're hearing — adding a written script is like having three screens in your brain*," she noted. Moreover, she **questioned the reliability of automated outputs**, citing a colleague's experience where AI-translated subtitles misinterpreted "Jews" for "shoes," during a Palestinian representative's speech, resulting in a **politically and reputationally damaging error (RQ4)**.

Her reflections confirm that AI does not currently assist during live performance due to practical limitations, yet she expresses cautious optimism toward future potential in speech

recognition — particularly for **rendering numbers**, which remain cognitively burdensome **(RQ3)**.

Pozzi sees AI not as an adversary but as a **cooperative tool** — an extension of the interpreter's pre-performance process rather than a replacement of live interpretive intelligence **(RQ4)**. She cautions against AI-generated translations that lack cultural and emotional nuance, citing her work in autism therapy interpretation as an example where tone and **interpersonal calibration** were essential — something AI cannot replicate. Her examples, such as interpreting therapeutic conversations with autistic children or diplomatically navigating politeness conventions across languages, show that **AI lacks the sensitivity to interpret tone, intent, and interpersonal subtext (RQ4)**:

"*I had to explain to the American consultant the nuances of Italian syntax for her better understanding...I don't think artificial intelligence would be doing that*," (Pozzi, 2025).

She offered a powerful analogy: "*Maybe AI will sound more natural one day. But it will never be human*," (Pozzi, 2025). Her position suggests that while machines might eventually match human fluency in tone or syntax, they **lack the ethical compass** and interpretive instinct required in diplomatic or crisis-related communication **(RQ4)**. Cecilia also fears **displacement in certain sectors** — especially written translation — but maintains that interpreting, especially live broadcast interpreting, will remain a bastion of human-led nuance **(RQ4)**.

Ultimately, her view aligns with a **collaborative intelligence framework**. She argues that interpreters must learn to **coexist with AI**, using it to enhance, not erode, human judgment **(RQ4)**. Interpreter training, she insists, must be updated accordingly: "*We need trainers who use AI tools, but also teach how to keep the human factor at the centre*," (Pozzi, 2025).

Still, she acknowledges partial benefits, illustrating a **nuanced approach to AI adoption**. Pozzi advocates for a complementary vision of AI, grounded in human discretion, contextual judgment, and ethical integrity **(RQ4)**. While acknowledging the threat of work displacement, she remains hopeful about coexistence: *"Every tool, including AI, depends a lot on the intelligence of the person using it,"* (Pozzi, 2025). Such statement reveals a broader professional philosophy: AI should support, not supplant, human expertise **(RQ4)**.

She draws parallels with post-COVID work culture, suggesting that — like the balance between remote and in-person formats — AI and human interpreters can coexist if boundaries

are clear. She warns **against blind trust** in AI output, affirming the interpreter's ethical and contextual judgment as irreplaceable **(RQ4)**.

Finally, Pozzi's reflections on interpreter training argue for integrated curricula where **technological literacy** is framed **not as a threat but as a competency**. She proposes that the core interpreter function remains human mediation, shaped by passion, humility, and service to communication **(RQ4)**. Pozzi argues that interpreter training should model synthesis, not substitution, balancing digital tools with ethical and empathetic practice. Her ultimate vision is of harmonized coexistence — where technology assists preparation, but human skill governs interpretation. As she poignantly states, interpreters must "disappear" into the message yet remain present as guardians of meaning **(RQ4)**.

When asked about the future of interpreter training, Pozzi emphasizes the importance of **human-centred instruction** that integrates digital literacy. She argues for harmonizing human empathy with technological tools: "*When you manage to harmonize the human aspects and technology, you can get the best out of both*" (Pozzi, 2025). Her belief that empathy and emotional presence will always be essential anchors this thesis's central claim: that even in technologically mediated spaces, the interpreter's humanity remains indispensable **(RQ4)**.

To conclude, Cecilia Pozzi's testimony offers a uniquely layered perspective on the modern interpreter's role: one of high emotional intelligence, continuous self-regulation, pedagogical sophistication, and cautious techno-literacy. Her reflections elevate the thesis by grounding abstract challenges in tangible experiences, underscoring the indispensability of human agency in technologically mediated communication. Her case illustrates that live broadcast interpreting is not simply a test of language proficiency — it is an art of presence, cognition, and ethical navigation under pressure.

With over 16 years of professional experience, **Ayman Alali** brings a seasoned and strategic perspective to real-time broadcast interpretation in the third and concluding conducted interview of the research (Attachment no. 3). His career spans diplomacy, international arbitration, and high-profile broadcast environments such as the BBC and Alaraby TV. As a London-based Arabic-English interpreter, his insights reveal the nuanced ecosystem of live media interpreting — one in which cognitive control, editorial alignment, and institutional literacy are just as vital as linguistic skill.

What sets Alali's testimony apart is his dual positioning within both traditional conference interpreting and modern live media contexts. This allows him to offer a comparative view on the demands, expectations, and evolving pressures interpreters face as digitalization and global communication converge.

Alali begins by dismantling a common myth: that live broadcast interpreting is cognitively challenging due to content complexity. In his view, it is not the linguistic density that proves difficult. Rather, it is the **demand for perfect performance in highly visible, rapidly shifting conditions** that sets live television apart. Alali reframes the question of cognitive challenge not as a matter of linguistic complexity, as he notes that "*television content is designed for public consumption*", but rather one of **precision under pressure (RQ1)**.

The real challenge, according to Alali, lies not in the content, but in the conditions: "*You're live: You're on-air; and the margin for error is zero*." This performance anxiety is exacerbated by unstable production environments, unexpected changes, and limited preparation time **(RQ1)**. This insight reframes **RQ1**, emphasizing that while linguistic challenge may be lower, the **stakes are no less acute**, and the interpreter must remain hyper-responsive and unflinchingly composed.

He recalls episodes where producers changed guests "*on the fly*," or when breaking news required him to pivot without context — such as interpreting live during the Korean president's impeachment, which has occurred as "breaking news" and thus, was not on the expected agenda. In such moments, "*visibility and timing*" become central, and the interpreter must think like a live editor, reformulating speech in real time while maintaining "*fluency, clarity, and control… even when the world changes mid-segment,*" notes Ayman Alali **(RQ1)**.

Perhaps most critically, Alali highlights the **physiological dimension** of pressure — how poor sound quality or chaotic instructions don't just disrupt cognition, but vocal delivery itself **(RQ1)**. "*Breath control is part of speech control*," he explains, describing moments where producers underestimated the cognitive cost of overworking interpreters, leading to diminished clarity. Here, his statement that "*the newsroom is always in crisis mode*" captures a profound structural issue: interpreters are often treated as tools rather than cognitive performers and expected to deliver high-stakes clarity without systemic support **(RQ1)**.

Tactical preparation, for Alali, is both **pragmatic** and **strategic**. He begins with scanning news feeds for potential geopolitical shifts that might impact on-air content en route

to the studio, followed by coordination with producers and presenters on editorial goals: "*Why are we covering this? What do you want the audience to take away from this segment?*" This proactive alignment, unique to high-functioning professionals, suggests a model of interpreting not as passive linguistic relay but as **editorial partnership,** as Alali's preparation process reflects a hybrid approach to traditional and adaptive practices **(RQ2)**. Elaborating on preparation strategies, Alali describes his working pre-live routine:

"*If time allows, I take a short walk outside to reset focus. I return, coordinate with sound engineers, test the line, confirm names and titles, and establish rapport with the guest before going live. When I have a full 360° understanding — topic, tone, intent — I can deliver clarity and precision,*" (Alali, 2025).

His goal is to create a full of the given context — an approach that collapses linguistic readiness into **strategic communicative alignment (RQ2)**.

When content is unfamiliar, he pivots quickly into focused **knowledge-gathering** — exploring "*core facts, timelines, local terminology, and the guest's background, especially their online activity*." This latter point is revealing: in cases where speakers deviate from official scripts, Alali leverages insights from personal social media posts to anticipate **discrepancies in tone and message**, to understand how a guest might pivot between private and public discourse – which is a nuance that purely linguistic preparation would miss. As he puts it, "*guests may share differing views on their personal social media compared to televised appearances,*" proving that his research is as much about **positioning** and **intent** as it is about terminology **(RQ2)**.

Crucially, his clarity during live events stems not from tools, but **internal control techniques**. While some interpreters may lean on digital tools, Alali emphasizes **somatic** and **rhetorical techniques** — tone matching, syntax sharpening, and rhythm regulation — to maintain precision under pressure **(RQ2)**. His approach blends **performance psychology** with linguistic precision — a theme that aligns with emerging views of interpreting as a performative act rather than a purely technical one.

Elaborating on AI's functionality and restrictions, Alali approaches this issue with nuance, neither resisting nor romanticizing it. He does not currently use AI tools in live settings — not due to ideology, but policy: "*Most media organisations restrict external software,*" he notes **(RQ3)**. While he is open to speech-to-text assistance in principle, he notes the **practical**

constraints of institutional regulations and the lag in trust regarding AI-generated content **(RQ3)**. Nevertheless, Alali is not dismissive. He acknowledges that **speech-to-text tools can outperform the human ear** in cases of poor audio, suggesting that AI has **real utility as an assistive tool**, especially for enhancing input quality during live events.

What emerges is a view of AI as useful in **peripheral tasks**, but still immature for high-stakes live performance, as noted by Alali himself:

"*I've monitored live AI captions… they're improving, but can still misrepresent meaning in subtle, high-stakes ways*," (Alali, 2025).

However, he also notes that "*errors still happen*," and when meaning is subtle or stakes are high, those errors can be reputationally catastrophic. His judgment is clinical: AI has potential, but the cost of error remains unacceptable in broadcast contexts, where everything said cannot be later extracted or edited **(RQ3)**.

This balanced stance reflects a growing **consensus** among experienced professionals: AI can support workflows, but it cannot yet replicate the kind of intuitive, high-context decision-making that interpreters perform under pressure. In Alali's professional world, a mistranslated nuance can have geopolitical consequences — not just reputational ones.

In contrast to other interviewees, Alali's stance on AI tools is marked by both **restraint and realism**. He explicitly states that **AI has not affected his professional judgment or autonomy**, a position grounded in his selective use of digital aids. While he might occasionally consult an online dictionary mid-segment, most platforms used in media interpreting environments **restrict the use of external AI software**, limiting experimentation **(RQ3)**. As it has been strongly highlighted by Alali himself: "*Interpreter training programs must prepare students to collaborate with AI without surrendering critical thinking*," – showing the need for curricula that not only acknowledge emerging technologies, but actively cultivate interpreters' agency, ethical judgment, and decision-making in hybrid human-machine environments.

Looking ahead, Alali envisions a future where AI complements but does not override human agency, seeing the future of the profession in a **strategic collaboration (RQ4)**. He is open about the possibility of eventual automation, noting: "*It might happen tomorrow; it might take another decade*" — but insists that **human nuance**, **ambiguity**, and **subtext** remain

unprogrammable **(RQ4)**. "*AI performs best with literal language and structured content. It falters where tone shifts or cultural layers emerge,*" (Alali, 2025).

This perspective speaks directly to the heart of the debate: AI's usefulness lies in augmenting input, not interpreting output. Alali's position resists both techno-scepticism and blind optimism. He argues that "*translation will follow [speech-to-text] ...but nuance, ambiguity, irony — these remain human territory*." Thus, his conceptual model of interpreting recasts the interpreter as a "strategic editor," not just a verbal conduit, **repositioning human expertise** as central even in an AI-augmented environment **(RQ4)**.

This insight reflects a broader understanding of the **division of cognitive labour** between humans and machines **(RQ4)**. He urges interpreter training programs to prepare students for a hybrid future — one in which "*interpreters think like editors, not typists,*" assuming a shift in interpreter's tasks. This notion applies to not solely new tools, but also new paradigms. "*While AI can draft a strategy, it cannot understand one*," states Alali **(RQ4)**.

Finally, Alali's critique of **institutional ignorance** offers a sobering meta-commentary on the profession. His closing reflections are as much about **respect and recognition** as they are about process. "*The greatest challenge I've faced in broadcast interpreting isn't the pace or content — it's the lack of understanding from within the system*," he reflects. Interpreters, he reminds us, are not merely "on air," but on edge — balancing physiology, cognition, and rhetoric in an invisible art form.

Here, he points to **systemic disregard for cognitive load**, citing instances where producers expect interpreters to go far beyond professional limits — such as solo interpreting for 90 minutes during breaking news, or running physically between studios mid-crisis, undermining **breath control and vocal stability**. "*If you run, you lose your breath. If you lose your breath, you lose clarity. It's not drama — it's physiology*," he insists. This observation expands **RQ1** and **RQ2** by showing that cognitive and professional demands are **not always linguistic — they are infrastructural and institutional**. His conclusion is striking in its assertion of professional dignity: "*My nervous system is not up for negotiation*." Alali's closing statement encapsulates a powerful call for recognition:

"*Interpreting is a human act. And if you want precision under pressure, the least you can do is understand the cost of it,*" a reminder that the cognitive, emotional, and ethical labour

invested in live interpreting cannot be abstracted or automated without consequence. It is a profession rooted in human presence, not just performance.

In sum, Alali's reflections crystallize the central tension explored throughout this thesis: the interplay between human resilience and technological possibility. His testimony not only reinforces the irreplaceable value of interpreter agency in high-stakes environments, but also broadens our understanding of the cognitive and institutional scaffolding required for precision under pressure. By grounding his insights in lived experience across both conference and media contexts, Alali reframes interpreting as a multi-dimensional practice — one that demands strategic awareness, editorial alignment, and bodily control as much as linguistic dexterity. His perspective ultimately affirms that while tools may evolve, the core of interpretation remains distinctly, and necessarily, human.

3.2. Research results: expert-lead discourses

The following section presents the qualitative analysis of four curated expert-led video sources used as supplementary data to triangulate and reinforce findings from primary interviews. These videos include webinars, demo challenges, and monologic commentary from leading figures in the interpreting profession and language technology sector. Each case is evaluated thematically through the lens of the central research questions guiding this thesis.

The materials are treated as extended expert testimonies, offering not only insight into practitioner discourse but also into broader institutional trends, professional anxieties, and visions for the future of interpreting. The four research questions provide the backbone of this analytical structure, ensuring consistency and comparative clarity across the cases.

RQ1: What specific cognitive, linguistic, and professional challenges do interpreters face in real-time live broadcast contexts?

Across the dataset, cognitive overload, semantic ambiguity, and temporal pressure emerge as core challenges interpreters face in live broadcast settings.

In the *WIRED's* "*Interpreter vs. AI Challenge*" (Case No. 1), professional interpreters Barry Slaughter Olsen and Walter Krochma repeatedly emphasize how speed, emotion, and spontaneity test human limits. Barry notes that interpreting fast-paced political speeches "felt like being hit by a torrent of words," requiring immediate distillation of high-density content

into coherent messaging — something AI struggled with in conveying nuance despite impressive lexical recall.

From the outset, the test exposes one of the most critical demands in broadcast interpretation: emotional nuance. Olsen frames the challenge not in terms of literal lexical decoding, but in "*the ability to connect with the audience*" during emotionally fraught moments, such as King Felipe VI's COVID address. He reminds viewers that "*words are just the vehicle*," foregrounding the interpreter's task as one of empathetic calibration — something AI demonstrably fails to approximate. The cognitive burden here lies in dual processing: filtering for key meaning under temporal pressure, while maintaining fidelity to tone, intention, and cultural resonance. While KUDO AI managed surface-level completeness, it stumbled on emotional charge — rendering phrases like "*the great emotional charge and physics on their backs*," where human interpreters would semantically map "*emotional burden*" onto contextually fitting target language. As Olsen asserts, such misalignment is not merely awkward but potentially "*borderline nonsensical*," revealing the fragility of semantic integrity under AI translation when metaphoric or affective content is at play.

Similarly, Joshua Goldsmith (Case No. 2) highlights that interpreters often "...*spend hours preparing glossaries from huge PDF documents*", with no guarantee that the extracted terms will even be relevant in real-time. The inability to fully predict content or speaker delivery adds a layer of constant uncertainty, requiring adaptive cognitive strategies and highly tuned professional instincts.

In AIIC's "*Future of Interpreting*" discussion (Case No. 3), panellists echo that the most significant threat is "*no interpretation at all*", especially as clients increasingly opt for "*good enough*" solutions. This commoditization creates professional pressure to justify not only linguistic accuracy but also existential relevance in a rapidly shifting industry.

RQ2: How do interpreters prepare for live interpreting assignments in media, and what strategies do they use to maintain quality under pressure?

Preparation, according to all analysed sources, is evolving into a hybrid of manual expertise and AI-assisted intelligence. Goldsmith (Case No. 2) outlines a two-pronged approach to preparation:

1. Content-level preparation: using AI to scan long texts, identify key terms, summarize technical documents.

2. Speaker-level profiling: reviewing speaker videos via AI to analyse speech rate, accents, and rhetorical style.

This mirrors the dual layer demands of broadcast interpretation, where interpreters must anticipate both what is said and how it is delivered. Both pathways emphasize *time-efficient terminology mining*, strategic anticipation, and the transformation of large knowledge corpora into context-specific glossaries.

Goldsmith's demonstration of AI-supported workflows offers a compelling contribution to understanding modern preparation strategies. The showcase of tools such as Readwise Reader and Notion AI reveals a layered, recursive process of preparation. For instance, Readwise's Ghostreader allows interpreters to summarize policy documents, extract terminology, or generate contextual definitions — all within one interface. Notion AI, meanwhile, facilitates multilingual glossary creation, including dynamic table formatting and use-in-context examples. These techniques represent a shift from linear to multimodal preparation, where interpreters combine traditional reading with layered digital inquiry.

However, Goldsmith insists that such outputs are only starting points — not final products. He encourages cross-referencing terms with official sources, reminding viewers that "*if you try to use the glossary as-is, you'll probably say things that aren't correct, and that simply isn't professional.*" This highlights a vital distinction in interpreter training: using AI to accelerate preparation does not replace the qualitative discernment required to interpret accurately in live scenarios.

Horváth, in AIIC Webinar on Interpreter Support (Case No. 4), supports this shift, emphasizing the pedagogical role of AI-based terminology tools. Horváth's primary focus lies in preparation — particularly how AI-powered systems can reshape the pre-assignment workflow. She outlines how tools like Artificial Booth Mate and Computer-Assisted Interpreting (CAI) platforms support "*terminology management during the event preparation phase, during the event itself, and in post-event consolidation*," demonstrating a holistic model of human-machine cooperation across the timeline of an assignment. This process reflects a shift in the interpreter's role from mere performer to technologically literate knowledge worker, capable of navigating new kinds of data.

Her references to "*memorization practices and approaches*" also highlight the educational implications of AI integration. With features such as automatic glossary creation, term extraction, and even customer relationship management, interpreters are equipped not only to prepare faster but to prepare smarter. This mirrors emerging pedagogical models such as "flipped learning" and blended environments that EMCI now incorporates into its curriculum — evidence that preparation in the AI age must be both linguistic and technological.

In Case No. 1, though not a traditional pre-broadcast context, Walter's approach to Petro's speech mirrors core preparatory strategies typical of media interpreters. In the hour before the test, he "*listened to his rhythms, his body language, and the level of language he uses*" — establishing speaker profiling as a cornerstone of real-time anticipation. This cognitive rehearsal, while informal, parallels the elite interpreter's need to pre-load rhetorical tone, ideological alignment, and potential terminological zones. AI, as showcased, by contrast, misread speech pauses as thought units, interrupting thematic progression and compromising overall clarity. The interpreters, however, used intonation and rhetorical cohesion as cues — demonstrating adaptive strategies based on live listening rather than static input, a trait essential to quality assurance under unpredictable conditions.

Although less focused on direct preparation strategies, the AIIC webinar (Case No. 3) surfaces a deeper strategic adaptation logic: interpreters must be prepared not just for assignments, but for client mindsets. Bowman notes that many clients now assume interpreters are using AI — whether or not they are — which subtly alters the performative expectation. Interpreters are thus being positioned not only as language professionals but as tech consultants, expected to educate clients and "win them over" not only through their output but through digital literacy and strategic communication.

RQ3: How is the integration of AI tools affecting interpreter workflow, autonomy, and decision-making in live settings?

The consensus is nuanced: AI supports autonomy in preparation but does not replace decision-making in live interpreting.

Goldsmith (Case No. 2) argues AI "*frees up cognitive space by handling repetitive prep tasks*," but he emphasizes that "*you still have to decide in real-time what's relevant and what's noise*." This framing recasts interpreters as curators and quality controllers — not merely linguistic conveyors. For instance, he distinguishes between terminology discovery (a helpful

AI function) and message accuracy (a human responsibility). By articulating this boundary, Goldsmith implicitly reasserts the interpreter's epistemic autonomy — maintaining control over meaning, ethical responsibility, and representational fidelity in the face of increasingly persuasive technologies

Goldsmith's view of AI is pragmatic rather than utopian. He refuses to endorse ChatGPT for live interpreter workflows due to issues of confidentiality, interface friction, and domain relevance. Instead, he introduces tools with tighter data protection protocols (e.g., API-based models that avoid public model training) and those optimized for document-based input. This suggests that the most pressing challenge for AI in interpreting may not be performance, but integration into secure, context-appropriate environments.

In the *WIRED* challenge (Case No. 1), AI excelled at retrieving exact terms like "*special drawing rights*" but failed to handle metaphor, idiomatic language, or high emotional stakes. Krochma compared such units to "*semantic bubbles*" — where AI creates grammatically coherent phrases that miss the flow and pragmatics of human speech. This betrays the absence of interpretive autonomy — AI does not adjust register, filter bias, or compensate for tonal shifts. Instead, its output is lexically sound but pragmatically hollow. This not only limits its application in fluid settings but threatens to deskill professional practice if adopted uncritically. The interpreters' skepticism is thus grounded in professional reflexivity: AI can assist but cannot yet make judgment calls — and to delegate those is to risk integrity.

Both interpreters from Case No. 1 acknowledged KUDO's strengths in glossary-level accuracy — e.g., its correct rendering of "president-in-office" or "special drawing rights." However, such successes underscore that AI operates best with "consecrated terms," already codified in institutional memory. The challenge arises when spontaneity or prosody destabilizes those structures.

By listing functions like automatic translation, terminology extraction, and live support during assignments, she points to a future in which AI tools serve as *embedded assistants* in the interpreter's environment. Yet she maintains a critical distinction: these tools "support" the interpreter — they do not *decide* or *replace*. This is a key ethical and operational boundary, affirming the interpreter's role as the final decision-maker in meaning production

Horváth's presentation (Case No. 4) is perhaps most potent in its exploration of how AI is reshaping workflow and interpretive autonomy. Horváth warns that AI, when uncritically

implemented, can compromise professional ethics and confidentiality. She distinguishes between "*general AI*" (creative, generative) and "*soft AI*" (task-specific), advocating for careful selection based on task typology.

Horváth's discussion touches implicitly on the cognitive and linguistic challenges faced by interpreters, particularly through her emphasis on cognitive saturation and problem-triggering moments in live interpreting. These insights resonate with the broader findings of this thesis: that while AI cannot yet replace human interpretation, it can play a role in mitigating cognitive overload — especially in complex, fast-paced contexts such as live broadcasts. As she notes, "Live support during the events provided by AI-powered tools can improve the quality of interpretation by decreasing the cognitive load," suggesting that machine assistance, when properly contextualized, supports human performance rather than undermining it.

Interestingly, her mention of AI being "*helpful*," supported by empirical studies, offers a rare data-backed endorsement of AI's integration. While many professional discourses remain speculative or anecdotal, Horváth's position within EMCI — which conducts structured pilot programs and publishes in academic formats — gives this claim additional weight. She suggests that interpreter autonomy is not eroded by AI; rather, it is repositioned, with the interpreter becoming a human-in-the-loop — the central orchestrator of AI-curated resources.

Within an AIIC webinar (Case No. 3) Lewis describes real-world scenarios in which speech-to-text and machine translation are now built into platforms such as MS Teams — not to replace interpretation, but to supplement it. He notes a critical bifurcation: AI tools are already mainstream in monolingual accessibility and are now approaching cross-lingual aid status. This raises concerns about autonomy — particularly when AI is integrated "by default" into organizational workflows without interpreter input or oversight. The lack of opt-out structures, or a shared understanding of when AI is appropriate, risks reducing human interpreters to mere accessories — expected to align with AI-dictated workflows rather than guiding them.

RQ4: To what extent can AI complement – rather than replace – human expertise in the context of high-stakes live broadcast interpreting?

All four cases advocate for a complementarity model, where AI tools act as enhancers — not threats.

Goldsmith (Case No. 2) repeatedly stresses that "*AI can suggest, but you decide*," framing tools like Readwise Reader and Sketch Engine as allies in the preparatory phase — not autonomous agents. He calls for a "co-pilot" paradigm, where humans retain ultimate control over nuance and ethics. His emphasis on confidentiality, post-editing, and validation demonstrates a protective instinct toward the integrity of interpretation. For Goldsmith, the fear of replacement is misplaced — what is needed instead is tech literacy, paired with a deep respect for the non-transferable aspects of human communication. His approach encapsulates the logic of curated augmentation: interpreters should adopt AI not as a delegate but as a subordinate — a tool that serves human decisions rather than overrides them.

The strongest definitive statement on human-AI dynamics arrives when Olsen (Case No. 1) reflects: "*Do I want a president of my country speaking to another president through AI? No.*" This sentiment is less about technical capacity and more about trust, liability, and interpretive ethics. Both Olsen and Krochma agree that AI may be appropriate in "*informal settings*" or "*non-consequential contexts*," but not in diplomacy, legal proceedings, or humanitarian negotiations — where meaning is high-stakes and irreversibility is inherent.

In their words, AI "*misses the metaphor*," "*cannot read irony*," and "*falters with tone shifts*" — features that are not bugs, but central to human communication. Rather than dismissing the tool, they advocate for cautious integration: "*We need to find out how to use this constructively*," Krochma notes. Olsen further echoes this sentiment: "*If we understand the power of the tool, we can respect the tool and use it to everyone's benefit*." This pragmatic vision is not antagonistic to AI, but firmly locates its utility in augmentation — not substitution. In this light, the human interpreter becomes a filter, not a conduit — repositioning their role in the age of semi-automated language mediation.

Throughout her webinar, Horváth (Case No. 4) avoids alarmism. Her tone is cautiously optimistic, seeing AI not as a threat but as a necessary evolution. "*We are heading towards a strong reliance on AI-based terminology management*," she notes, signalling that the profession must prepare for sustained coexistence, not temporary experimentation.

Her practical recommendation to embrace "*hybrid solutions*" reinforces the argument made by several interviewees: that the future lies in symbiotic frameworks, where interpreters work with — not for — AI systems. In this way, Horváth's position bridges technological

optimism with pedagogical realism, suggesting that the key to sustaining human-led interpreting is not resistance, but guided adaptation.

In the AIIC panel (Case No. 3), institutional speakers from the EU Parliament and IMO agree that AI cannot be trusted for high stakes, live political events. Niehues adds that "trust" is the main bottleneck for AI implementation, not just accuracy. Crucially, the panellists converge on the idea that AI is not yet — and perhaps never will be — a replacement for human interpreters in high-stakes environments. Niehues and Lewis emphasize the catastrophic cost of AI error, especially in political or institutional contexts. "*What's the cost for the error?*" Lewis asks pointedly — highlighting the asymmetric risk posed by even minor misinterpretations in diplomacy, law, and governance.

Within the same webinar, Jayes adds that remote interpreting — once perceived as a threat — has become "*something of a lifeline*." The same may hold true for AI: what was once feared as a disruptive force may, if correctly framed, become a peripheral support system. But this future is conditional. "*It depends on how we respond*," Kokoszycka reminds us — and the future belongs not to the most technically advanced, but to the most adaptive.

The closing poll — where 76% of AIIC webinar attendees agreed that human interpreting "*still has a future*" — is less a sign of conservatism than of cautious optimism. The remaining 22% who were "*not sure*" capture the profession's current liminality: between technical augmentation and institutional redefinition. What emerges from the discussion is not a rejection of AI, but a mandate to reframe the interpreter's role as strategic, adaptive, and irreplaceably human in the face of an evolving digital frontier.

To conclude, examined video cases reveal that the future of interpreting lies not in resistance to AI, but in its strategic integration. Interpreters are evolving from language processors to technologically literate professionals capable of managing hybrid workflows. The results show that while AI excels in repetitive and time-consuming preparatory tasks, it falters in dynamic, emotionally charged, or politically sensitive environments.

The collective professional voice across the four video cases supports a model of augmented interpreting, where human expertise, ethical decision-making, and contextual understanding remain indispensable — even as AI continues to reshape how interpreters prepare, perform, and protect the integrity of their work.

4. Analysis of results and discussion

This chapter synthesizes the core insights derived from the both theoretical and empirical research conducted for this thesis, drawing on both original interview data and expert-led public discourses to construct a coherent understanding of the challenges and opportunities currently shaping live broadcast interpreting. While Chapter 3 presented and categorized the primary findings thematically, the present chapter moves beyond documentation toward critical reflection. Here, results are interpreted in relation to the theoretical frameworks introduced in Chapter 1 and the methodological design outlined in Chapter 2.

In doing so, this chapter positions the interpreter not merely as a linguistic intermediary, but as a cognitive, strategic, and professional agent operating within an increasingly complex and hybrid communicative landscape. Four thematic domains repeatedly emerged across the interviews and expert commentaries — encompassing cognitive and linguistic demands, preparation strategies under pressure, the integration of AI tools, and the evolving relationship between human expertise and technology. These domains reflect the four guiding research questions and provide the structural foundation for the sections that follow.

The chapter thus has three interlinked aims: first, to distil and interpret key findings that illuminate the lived realities of interpreters working in high-stakes, real-time broadcast environments; second, to explore the implications of these findings for interpreter training, professional norms, and ethical considerations; and third, to propose targeted recommendations that can enhance quality, resilience, and innovation in the field. Ultimately, this chapter argues for the enduring relevance of human interpreters — not as competitors to AI, but as irreplaceable anchors of contextual meaning, adaptive reasoning, and communicative integrity in an age of automation.

4.1. Key findings

This section distils the core findings of this thesis, drawing from original interviews with professional interpreters and secondary expert discourses to map the lived realities of real-time live broadcast interpreting. Beyond descriptive presentation, the analysis critically interprets what these voices reveal about cognition, preparation, technology, and professional positioning. In connecting these findings with the theoretical groundwork laid out in Chapter

1, and through the analytical lens established in Chapter 2, this chapter aims to reframe the interpreter as a strategic and embodied agent — performing under pressure, adapting in complexity, and navigating both human and machine constraints with precision and purpose.

In alignment with the thesis objectives, the analysis is structured around four key thematic domains that consistently surfaced across data sources: (1) the cognitive and performative nature of interpreting under pressure, (2) preparation as an adaptive and strategic practice, (3) the contextual utility and ethical limitations of AI, and (4) systemic challenges in infrastructure and professional recognition. These domains correspond implicitly to the research questions posed in Chapter 2 and form the backbone of this reflective synthesis.

Findings across all data sources confirm that **live media interpreting is less defined by linguistic density and more by performative resilience, cognitive control, and embodied presence**. All three interpreted professionals – Pozzi, Galijuš, and Alali – describe workflows in which managing one's nervous system becomes as critical as managing syntax. In high-stakes, fast-paced media environments, it is not words alone that are interpreted — it is chaos, emotion, politics, and unpredictability.

Alali's assertion that *"the nervous system is not up for negotiation"* (2025) crystallizes this paradigm shift: interpreting is as much about **stability under cognitive duress** as it is about message fidelity. Similarly, Galijuš spoke of navigating **adrenaline-fueled environments** through breath regulation and physical grounding. These testimonies align with cognitive load theory discussed in Section 1.2.3, expanding it into somatic and psychological territory.

Pozzi's reflections deepen this picture. Her account of being thrust into unscripted transitions — pivoting from studio commentary to war-zone updates within seconds — illustrates the acute **volatility of television settings**, where topic shifts are immediate and resources scarce. Unlike traditional conferences, Pozzi described her broadcast interpreting as operating solo, without a booth partner, and often under audio or logistical disruption. In her words, **external noise, internal pressure, and visibility to peers fragment cognitive focus**, transforming the interpreter's role into one of high-stakes **emotional multitasking.**

This finding offers a vital extension to existing theory: **interpreting is not merely listening and speaking — it is judgment under surveillance**, with the interpreter both processing meaning and managing perception. The psychological cost of visibility, and the

internalized pressure of perceived failure, emerge as distinct stressors unique to the live broadcast setting.

Across interviews, preparation emerged not as a checklist, but as a cognitive and emotional ecosystem — shaped by intuition, repetition, and adaptability. The research reveals a shift away from static glossary-building toward immersive contextual orientation.

Pozzi, for instance, blends pedagogical insight with real-world urgency. Her preparation model includes substituting entertainment with foreign-language news during daily chores, profiling speakers through their past appearances, and maintaining color-coded glossaries by domain and emotional weight (e.g., red for war, green for diplomacy). She also rehearses interpreting impromptu TV segments to **maintain readiness beyond scripted material**. This practical approach underscores the arguments raised in Section 1.2.2, which frame preparation as **strategic performance rehearsal** as much as terminology work.

Galijuš, too, described pre-event rituals — not only compiling terminology, but **building mental resilience through situational visualization**, especially in events where emotional volatility and multilingual inputs are unpredictable. Meanwhile, Alali's preparation includes researching not just the event but also the editorial intent. His preparation is cognitive, relational, and editorial — collapsing the interpreter's function into **that of a content curator**.

Perhaps the most consistent theme across sources was the **conditional value of AI**. While the profession does not reject technology outright, it also does not accept it uncritically. Pozzi offers a particularly layered view: she uses AI in preparation, such as asking ChatGPT to list major historical events or draft preliminary term glossaries. However, she remains adamant about **handwriting her final glossaries**, insisting that it is more helpful in terms of memorization — a claim supported by cognitive studies on embodied learning.

AI is seen as **a productivity aid — not an interpretive authority**. Galijuš voiced a clear warning: *"It doesn't think, it counts — and counts wrongly."* This echoes the finding in the KUDO vs. Human Interpreters video analysis, where AI often captured content but failed in tone and register, producing grammatically correct but culturally tone-deaf outputs.

Pozzi recounts a politically sensitive AI blunder — where subtitles mistook "Jews" for "shoes" — reinforcing the **reputational danger of overreliance**. Her critique is not just technical, but philosophical: AI cannot "*listen between the lines*" or resolve ambiguity through

empathy, intuition, or ethics. Particularly in contexts like autism therapy or geopolitical diplomacy, **tone and intent are inseparable from meaning**.

And yet, professionals are not anti-tech. All three interviewees use AI as part of their **pre-performance architecture**, often as a rapid research engine or second-check system. Their stance reflects the theoretical conclusions of Section 1.3.2 — that the future lies not in automation, but in **hybrid collaboration**. As Joshua Goldsmith affirms, the goal is not to replace the interpreter but to *"accelerate, not automate."*. In Goldsmith's presentation, AI-powered tools like Notion AI and Readwise Reader were shown to assist in rapid term extraction or topic mapping — yet he explicitly warned against outsourcing judgment. *"AI can help speed up your research… but you still have to use your brain,"* he cautioned, reaffirming that while tools can support, **they cannot synthesize meaning or anticipate intent**.

A final — and deeply revealing — insight was the **systemic underappreciation of interpreter needs**, particularly in high-pressure media contexts. Alali and Galijuš both spoke of poor booth conditions, malfunctioning equipment, and unrealistic time slots that severely compromise both performance and wellbeing. Pozzi added another layer to this critique by describing the structural invisibility of the interpreter within live television production. Producers and editorial staff often interrupt or ignore the interpreter's live role, unaware of the cognitive and performative stakes involved in real-time delivery.

Beyond practical neglect, however, all three interviewees expressed a striking common concern: the **paucity of research, visibility, and institutional literacy around this specific form of interpreting**. Despite its growing prominence, live broadcast interpretation remains under-theorized and under-represented in both scholarly and professional discourse. Pozzi explicitly noted the absence of pedagogical models that reflect the emotional and cognitive challenges of interpreting on-air. Galijuš reflected on how little guidance exists for managing unpredictability in performance-based settings. Alali emphasized that live interpreting is often treated as a mere extension of conference work — a misunderstanding that fails to acknowledge the editorial, physiological, and temporal complexities unique to live media environments.

This combined testimony constitutes a call to action: to broaden academic inquiry into this professional niche, to update training curricula accordingly, and to advocate for greater awareness at the institutional level. The existing theoretical literature — including Section 1.1.3 on communicative quality and Section 1.2.3 on cognitive load — offers valuable foundations,

but the practical realities voiced by these professionals underscore a stark research-practice gap. In short, the profession is evolving faster than the frameworks used to understand and support it.

Alali's concise diagnosis encapsulates this unmet need: *"This is not a cognitive issue — it's a dignity issue"* (2025). Without structural recognition, ethical infrastructure, and informed support, even the most skilled interpreters are left navigating systems that misunderstand their task. The consequences are not only professional but communicative: when interpreters are overlooked, so too is the communicative integrity of global discourse.

The findings of this thesis reveal not only the complexity but the **human specificity** of live broadcast interpreting. The profession demands more than bilingual fluency — it requires **situational foresight, stress resilience, and ethical discernment**. Technology, while increasingly embedded in workflows, cannot substitute the interpreter's uniquely human capacity for contextualized, embodied meaning-making.

Galijuš, Alali, and Pozzi each embody a different dimension of the 21st-century interpreter: the grounded performer, the editorial strategist, and the reflective educator. Their testimonies, triangulated with expert discourse and theoretical research, collectively affirm that **interpreting is not a mechanical task to be automated, but a human act of presence, judgment, and care**. In the age of AI, it is precisely these non-automatable attributes — empathy, improvisation, ethical restraint — that sustain the profession's irreplaceable value.

4.2 Implications for future interpreting practices

The findings of this research underscore a profession at a pivotal crossroads. In the current communicative ecosystem — shaped by rapid technological acceleration, increasingly multilingual information flows, and intensifying media immediacy — live broadcast interpreters are being asked to navigate a terrain that is as cognitively demanding as it is ethically complex. What emerges from this study is not merely a call for improvement but a mandate for transformation. Interpreters can no longer be seen as reactive linguistic vessels; they must be positioned as proactive cognitive agents and editorially aware communicators, whose decisions in real time carry substantial social, cultural, and informational consequences. This has profound implications for the training, technological scaffolding, and professional ethics of the field.

First, interpreter education must undergo a paradigmatic shift. As revealed in the data, real-time broadcast interpreting requires more than just linguistic mastery or terminological recall. It calls for acute editorial judgment, bodily composure under pressure, and rapid adaptive reflexes. These are not incidental traits — they are core competencies. Alali's conception of interpreters as "strategic editors" offers a compelling redefinition of professional identity, one that foregrounds interpreters as meaning-makers who must filter, frame, and prioritize in real time.

Therefore, interpreter training must expand to include somatic practices (e.g. breathwork, nervous system regulation), crisis simulation exercises, and editorial reasoning frameworks. Pedagogical approaches should be designed to move beyond passive knowledge transfer and toward active, scenario-based development — cultivating not only cognitive endurance, but also affective and ethical reflexivity. Section 1.2.2 has already framed preparation as a strategic, anticipatory, and context-driven activity; these insights must now be operationalized within institutional curricula. Media literacy, editorial ethics, and AI-critical awareness should be woven into the standard training fabric, ensuring that future interpreters are not only linguistically agile but technologically and ethically fluent.

Second, the integration of artificial intelligence must be approached with strategic intentionality. This study affirms that AI has become a reality in the field — through tools such as speech recognition, automatic transcription, and real-time glossary generation — but also reveals the limitations of these tools in capturing nuance, context, and cultural tone. Galijuš's critique that AI "counts wrongly" reflects a broader professional concern that automation may outpace, but not out-think, the interpreter.

As argued in Section 1.3.2, the path forward lies not in resisting automation, but in reconfiguring it to serve human interpretive judgment. Goldsmith's maxim — "use AI to accelerate, not automate" — encapsulates this stance. Interpreters must be empowered with AI-critical literacy: they should understand how tools function, where they add value, and where they require human override. Training programs must teach interpreters to critically evaluate AI outputs and to integrate them as components of hybrid workflows, not as replacements. Meanwhile, developers and broadcasters should prioritize building interpreter-centred tools — platforms that allow editorial override, contextual annotation, and real-time interaction with the AI system. Such design would reflect the co-evolutionary model described

in recent scholarship: a future in which human and machine intelligence are mutually enhancing rather than mutually exclusive.

Third, the professional infrastructure supporting interpreters must be reimagined with well-being at its core. One of the most compelling insights from the interview data was not about language or technology, but about working conditions. Both Kamila and Alali described structural deficiencies — poor equipment, suboptimal booths, unsustainable workloads — that directly impair interpretive performance. These are not peripheral irritants; they are central to the interpreter's cognitive and physiological functioning. Alali's articulation of interpreter output as both "physical and mental" is not metaphorical — it is neurologically and performatively true, as corroborated by the literature on interpreter fatigue and cognitive load (Section 1.2.3).

This requires a profound shift in institutional policy. Interpreting must be viewed as a high-performance cognitive labour that demands tailored physical environments, regulated work cycles, and shared responsibility across team configurations. Institutions must adopt policies that ensure ergonomic booths, high-fidelity audio systems, and clear team-based rotation models to prevent burnout. Only when the interpreter is supported as a full cognitive and communicative actor can the high standards of quality, accuracy, and coherence outlined in Section 1.1.3 be consistently achieved in practice.

Finally, as AI systems are increasingly embedded into communicative infrastructures, the ethical scaffolding around interpretation must be strengthened. Section 1.3.3 detailed the concerns regarding authorship, transparency, and accountability in hybrid human-machine interpreting. These are not abstract dilemmas; they are real risks, especially in high-stakes contexts such as political summits or emergency broadcasts. The ethical implications of misattributed errors, opaque AI outputs, and unmarked machine involvement cannot be overstated. As our research shows, practitioners are acutely aware of these risks and are calling for institutional clarity.

Future workflows must therefore formalize transparency protocols — audiences should always know what is interpreted by a human and what is machine-generated. Additionally, roles and responsibilities in AI-supported interpretation must be clearly defined. If AI contributes to an error, the liability must be traced accordingly; interpreters should not bear the ethical burden of technological decisions beyond their control.

To address these challenges, ethical education must be extended not only to interpreters but also to the broader ecosystem: clients, broadcasters, developers, and policymakers. Frameworks such as SAFE-AI, which emphasize human oversight, accountability, and transparency, should be adopted and adapted to interpreting contexts. In doing so, the profession can safeguard both interpretive integrity and public trust.

In conclusion, the future of live broadcast interpretation cannot be secured by incremental change alone. It demands a comprehensive, cross-sectoral reorientation that acknowledges interpreters as expert mediators operating at the front lines of global communication. This reorientation must span training, infrastructure, technology, and ethics — each reinforcing the others in a shared architecture of resilience, excellence, and human agency. What is at stake is not merely professional survival, but the credibility and clarity of multilingual public discourse in the digital age.

Altogether, the implications of this research are clear: live broadcast interpretation must be redefined as a human-centred, strategically mediated, ethically anchored, and technologically supported profession. To achieve this, interpreter training, institutional policies, and technological development must evolve in concert — not as parallel efforts, but as an integrated movement toward resilience, relevance, and reform. Interpretation, then, is not just a professional service — it is **a communicative responsibility**. And that responsibility cannot be ethically delegated to algorithms without full transparency and human oversight.

4.3. Suggestions for improvements in live broadcast interpreting

Having examined the cognitive, technological, and ethical dimensions of live broadcast interpreting, it becomes evident that the field stands at a pivotal crossroads. The task now, in author's opinion, is not simply to observe, but to act with precision and foresight. Drawing from the empirical evidence and theoretical grounding of this thesis, this section translates key insights into **targeted, forward-looking proposals**. These suggestions are not idealistic abstractions — they are grounded in practitioner testimony, aligned with pedagogical theory, and shaped by the realities of rapidly evolving media ecologies. The following recommendations synthesize the core findings of this thesis into actionable proposals, offering strategic improvements across four interrelated domains: interpreter education, institutional infrastructure, technology design, and public understanding.

For interpreter training and educational programs:

A fundamental starting point lies in the transformation of interpreter training programs. Interpreter education must transcend traditional linguistic instruction and embrace a curriculum that reflects the demands of live, high-stakes performance in hybrid human-machine settings. Training programs should incorporate high-stakes simulation exercises that mirror the conditions of live interpreting: tight timeframes, incomplete preparation, shifting topics, and unpredictable speaker delivery. These simulations should include performance critique, emotional feedback processing, and real-time stress regulation — echoing Cecilia Pozzi's call to train both the voice and the nervous system, supported with Galijuš's observation that live broadcast interpreting eludes traditional classroom instruction and must instead be experienced firsthand.

Interpreters must be trained to use AI tools strategically and selectively. This means understanding where automation supports workflow (e.g. glossary generation, speaker identification) and where it risks distorting meaning (e.g. culturally nuanced phrasing, emotional tone). Educational frameworks must emphasize AI-supervised interpretation, not automation dependence.

Given the findings in Chapter 3 and the editorial role described by Alali and Pozzi, interpreter curricula should include components on media literacy, speechwriting, editorial decision-making, and even cognitive science. These modules prepare interpreters to act not only as linguistic conduits but as editorially grounded communicators within complex media ecologies.

For interpreting institutions and broadcasters:

Institutional support structures must shift from reactive facilitation to proactive investment in interpreter excellence and sustainability. Institutions must invest in ergonomic, acoustically optimized booths; reliable, high-fidelity audio equipment; and physical environments conducive to sustained cognitive focus – all in order to improve interpreters' well-being and performance. These upgrades are not perks but prerequisites for the quality standards outlined in theoretical discussions of accuracy and performance (Section 1.1.3).

Similarly, institutions are advised to articulate clear protocols and transparent policies that delineate when and how AI is used during interpretation. This includes clear labelling for

audiences and clear communication to interpreters about expectations and fallback plans, so that the responsibility is shared, and liability is clearly assigned.

Further discussing given issue, it is advised that rotational and support systems for interpreters are established. Interpreting teams should be standard in live broadcast settings, especially in long-form or high-pressure events. Institutions must implement structured break systems, co-interpreting models, and feedback mechanisms that prioritize health, concentration, and collaborative excellence — a point stressed repeatedly in Alali's account.

For technology developers and AI tool designers:

Technological advancement must be refocused to amplify, rather than override, the interpreter's judgment and agency. AI developers, as advised by author, shall move away from user-centric designs that prioritize speed or interface convenience for broadcasters, and instead build systems attuned to the interpreter's workflow. Tools should be co-designed with practicing interpreters and stress-tested in real broadcast scenarios.

Interpreters must have the ability to edit, annotate, or adjust AI-generated outputs in real time — including automatic captions, suggested terminology, or speaker recognition errors. These override features are crucial in maintaining accuracy and accountability in contexts where AI may misread nuance or intent.

AI tools must evolve to enable and integrate contextual awareness and learning: speaker identity, historical discourse, emotional tone, and culturally loaded terminology. While this remains a technological challenge, developers should aim toward dynamic systems that learn in context rather than apply static databases to live interpretation tasks.

For clients, audiences, and the broader public:

Public awareness and appreciation of interpreting as a cognitive, emotional, and ethical profession must be elevated to foster greater respect and appropriate expectations. Broadcasters and institutions must actively educate audiences about what interpretation entails — including its cognitive complexity, the challenges of live settings, and the risks of AI errors. A clearer public understanding will not only raise the status of interpreters but also protect the communicative contract between source and target audiences.

Clients and policymakers must be cautious not to over-automate tasks that demand empathy, discretion, and cultural judgment. As discussed in Section 1.3.3, when machine error is misattributed to human professionals, it erodes trust and undermines the profession. Policies should advocate for hybrid systems where accountability is shared, and transparency is paramount.

Each of these recommendations reflects not simply an improvement, but a necessary evolution — grounded in empirical findings, theoretical inquiry, and practitioner insight. The profession of live broadcast interpreting is facing both its most profound challenges and its most exciting possibilities. Author believes, that with a coordinated and active approach from educators, institutions, developers, and clients, it can result in a model of ethical, strategic, and human-centred communication in the digital age.

Conclusion

This thesis set out to explore the evolving nature of live broadcast interpretation in a media landscape increasingly shaped by digital immediacy, technological acceleration, and complex multilingual demands. At its core, the study sought to understand how interpreters working in live broadcast settings navigate the cognitive, emotional, and ethical challenges of their profession, particularly in an era where artificial intelligence is reshaping the contours of communication. By integrating a dual-pronged methodology — comprising expert interviews and the analysis of public discourse and media events — and grounding the inquiry in a robust theoretical framework, this research has produced a rich, multi-dimensional portrait of the contemporary interpreter as not only a linguistic mediator, but as a strategic, performative, and ethically responsible agent.

From the outset, the thesis has argued that interpreting in live broadcast contexts cannot be reduced to a process of mechanical translation or terminological equivalence. Rather, it is a high-stakes act of live meaning-making, where interpreters must engage in real-time editorial decision-making, emotional self-regulation, and continuous contextual calibration. The findings presented in Chapter 4 substantiate this proposition with compelling clarity. The testimonies of Ayman Alali, Kamila Galijuš, and Cecilia Pozzi — alongside expert contributions such as those from Joshua Goldsmith — illuminate the lived realities of practitioners whose work unfolds in unpredictable environments, under intense time pressure, and often without the institutional safeguards necessary for sustained excellence.

One of the most salient insights of this study is the reconceptualization of interpreter preparation. As revealed in both theoretical (Chapter 1) and empirical research (Chapter 3), preparation is not a static pre-performance checklist, but an ongoing, adaptive, and affective process. It encompasses not only the acquisition of terminological knowledge but also the cultivation of speaker familiarity, the monitoring of public discourse, and the regulation of the interpreter's own nervous system. Galijuš's emphasis on emotional readiness, Alali's notion of "*editorial awareness*," and Pozzi's pedagogical integration of performance psychology all contribute to a more holistic understanding of what it means to "be ready" in live media environments. These insights challenge interpreter training programs to expand their focus, integrating somatic practices, editorial reasoning, and scenario-based rehearsal into the formal curriculum.

Equally important is the role of artificial intelligence — not as a looming threat or magical solution, but as a tool whose value depends entirely on how it is understood and deployed. AI systems such as speech recognition and terminology extraction were acknowledged as helpful in preparatory phases, yet all interviewed practitioners voiced strong reservations about their use in live performance. As Pozzi vividly described, the presence of AI-generated subtitles during live delivery fragments attention and induces cognitive overload — a phenomenon she describes to be burdensome, rather than helpful. Galijuš's blunt critique — "*it doesn't think, it counts*" — captures the deeper epistemological problem: AI lacks interpretive judgment, cultural sensitivity, and affective calibration. These are, in contrast, precisely the competencies that human interpreters bring to the table. As Chapter 4 argued, the future of interpretation lies not in full automation but in hybrid workflows where AI is used to enhance — never replace — the authority and intuition of the interpreter.

This leads to one of the most critical findings of the study: the profession's systemic underinvestment in infrastructure, wellbeing, and ethical clarity. The accounts of subpar booth conditions, inadequate equipment, unrealistic expectations, and insufficient breaks are not anomalies — they are endemic. This structural neglect undermines not only the health of interpreters, but also the quality and integrity of multilingual public discourse. As Section 4.2 contended, this is not merely a logistical issue, but an ethical one. When institutions fail to provide the conditions necessary for high-quality interpretation, they compromise both communicative access and professional dignity. The gap between the theoretical ideals of accuracy and coherence (Section 1.1.3) and the real-world constraints experienced by practitioners must be closed through comprehensive policy and design reform.

Taken together, the findings of this thesis validate its central argument: that live broadcast interpretation is a cognitively intense, ethically charged, and technologically entangled form of communication that demands systemic recognition, pedagogical innovation, and cross-sectoral accountability. The interpreter is not a neutral conduit but a context-aware actor — one whose work shapes how knowledge, identity, and power circulate in public life. In this sense, interpreting is not simply a support service; it is a central infrastructure of democratic, multicultural societies.

This research also opens new directions for inquiry and intervention. Future studies might explore the neurocognitive profiles of interpreters under varying stress conditions; the implications of AI's expansion into real-time interpreting platforms; or the political economies

that determine who has access to high-quality interpretation in media systems. Moreover, as the boundaries between interpretation, translation, and algorithmic mediation continue to blur, interdisciplinary collaboration — across linguistics, communication studies, media technology, and ethics — will be essential to safeguarding the human elements of interpretation.

While this thesis has focused on live broadcast interpretation as a distinct and high-stakes communicative context, its implications extend more broadly. The need to protect human agency in technologically mediated communication is not limited to interpreting — it speaks to wider concerns in journalism, education, diplomacy, and human rights advocacy. The interpreter, in this view, is not just a linguistic actor but a guardian of intelligibility in an age where communication risks becoming both accelerated and decontextualized.

In conclusion, this thesis has sought to contribute to both scholarly discourse and professional practice by offering a comprehensive, data-informed, and ethically grounded analysis of live broadcast interpreting. It affirms the irreplaceable role of the human interpreter in the digital age — not in opposition to technology, but as its co-navigator. The challenges ahead are considerable, but so too is the potential: to design systems, institutions, and pedagogies that support interpreters as the resilient, strategic, and meaning-making professionals they have always been — and must remain.

Resumé

Predkladaná diplomová práca s názvom "Tlmočenie vysielania v reálnom čase" sa zaoberá komplexným fenoménom tlmočenia v rámci živého vysielania, dynamickou a rýchlo sa rozvíjajúcou oblasťou, ktorá sa nachádza na rozmedzí jazykových kompetencií, mediálneho výkonu a technologických inovácií. Vzhľadom na prebiehajúce transformácie v rámci tlmočníckej profesie aj širšieho komunikačného prostredia tento výskum slúži na analýzu toho, ako sa tlmočníci vyrovnávajú s výzvami súvisiacimi s časovými obmedzeniami, nepredvídateľnosťou a verejnou viditeľnosťou, ktoré sú neodmysliteľnou súčasťou mediálneho prostredia v reálnom čase. Osobitná pozornosť sa venuje meniacej sa úlohe ľudskej expertízy v dobe rastúcej automatizácie, pričom sa skúmajú konkrétne etické, profesionálne a praktické dôsledky integrácie umelej inteligencie do tlmočníckeho pracovného procesu.

Práca je rozdelená do štyroch hlavných kapitol. Úvod práce tvorí teoretický základ súčasného stavu problematiky na Slovensku ako aj v zahraničí. Prehľad sa opiera o odbornú literatúru, správy z inštitúcií a praktické poznatky, ktoré približujú tlmočenie vysielania v priamom prenose ako jedinečný a zároveň zložitý komunikačný akt. V tomto rámci je načrtnutých niekoľko základných dimenzií, počnúc samotným predstavením konceptu živého vysielania. Definície simultánnosti, neodkladnosti a sprístupnenia pre divákov slúžia ako základ pre ďalšie skúmanie toho, čo predstavuje kvalitu a presnosť v prostredí pod vysokým tlakom v reálnom čase. Následná diskusia sa zameriava na odbornosť a profesionálnu prax tlmočníka, pričom sa zdôrazňujú kognitívne výzvy, strategické postupy a adaptačné zručnosti potrebné na udržanie profesionality v nevyspytateľných podmienkach.

Prvú kapitolu uzatvára analýza využitia umelej inteligencie v tlmočníckej praxi. Teoretický prehľad spočíva v skúmaní prospešných aj problematických nástrojov podporených umelou inteligenciou, najmä pokiaľ ide o ich funkčnosť počas tlmočenia vysielaného naživo. Automatizované systémy síce môžu poskytnúť podporu pri príprave pred podujatím, ale ich neschopnosť spracovať celkový kontext, drobné odchýlky a výrazný ľudský prejav ich robí nespoľahlivými počas samotného tlmočníckeho aktu. Toto napätie medzi automatizáciou a ľudským faktormi vyvoláva dôležité etické a profesionálne otázky vrátane obáv z oslabovania profesionálnych štandardov a nadmerného spoliehania sa na nástroje umelej inteligencie – všetky tieto otázky sú skúmané cez prizmu odbornej literatúry a súčasných diskusií z mediálneho odvetvia.

Druhá kapitola predstavuje ciele práce a približuje metodológiu prieskumu. Vo výskume sa uplatňuje kvalitatívny prístup, ktorý vychádza z dvoch zdrojov: v prvom, zo série pološtruktúrovaných rozhovorov uskutočnených so skúsenými tlmočníkmi a v druhom, z analýzy verejného diskurzu vrátane odborných fór, záznamov z konferencií a komentárov odborníkov. Rozhovory boli navrhnuté tak, aby získali priamy pohľad na životné skúsenosti, pracovné podmienky a profesionálne postoje, zatiaľ čo analýza diskurzu poskytla širšie kontextové pozadie, pričom tieto individuálne perspektívy zasadila do kolektívneho hlasu tlmočníckej komunity. Dbalo sa aj na etické vedenie výskumu, pričom všetci účastníci poskytli informovaný súhlas v rámci spracovania ich príspevkov.

Tretia kapitola predstavuje empirické zistenia. Z rozhovorov vyplynula zhoda, pokiaľ ide o rastúcu zložitosť úloh tlmočenia v reálnom čase, ktoré sa prejavujú zvýšenými kognitívnymi požiadavkami, obmedzeným časom na prípravu a rastúcimi očakávaniami zo strany inštitúcií aj publika. Účastníci (Kamila Kamala Galijuš, Cecilia Pozzi, Ayman Alali) zastávali výkonnú povahu tlmočenia naživo a často ho prirovnávali k scénickému prednesu z hľadiska prísnej verejnej kontroly. Mnohí opísali svoj vzťah k umelej inteligencii ako ambivalentný: zatiaľ čo niektorí uznali jej užitočnosť pri extrakcii terminológie alebo analýze reči pred podujatím, väčšina vyjadrila výhrady k jej použitiu v scenároch, kde je nevyhnutná kontextová inteligencia a emocionálna kalibrácia. Tieto zistenia sa potvrdili v analýze diskurzu, ktorá odhalila rastúce obavy odborníkov z potenciálnej marginalizácie tlmočníkov v rozhodovacích procesoch súvisiacich s technologickou integráciou.

Vo štvrtej kapitole sú výsledky práce zanalyzované kriticky na základe kladených otázok výskumu. Údaje naznačujú, že tlmočenie v prostredí živého vysielania nie je len záležitosťou jazykového prenosu, ale sofistikovaným komunikačným výkonom, ktorý je formovaný prípravou, intuíciou a prispôsobivosťou. Tlmočník sa ukazuje skôr ako spolutvorca významu než ako neutrálny sprostredkovateľ nielen medzi jazykmi, ale aj medzi publikom a udalosťami v reálnom čase. V tomto kontexte nástroje umelej inteligencie, hoci sú užitočné pri príprave, nedosahujú tlmočnícke a výkonné schopnosti, ktoré sa vyžadujú počas vysielania v reálnom čase. V dôsledku toho by sa technológie mali skôr vyvíjať a nasadzovať spôsobom, ktorý posilňuje a podporuje ľudskú činnosť, než aby nahrádzali ľudských tlmočníkov.

Záver zdôrazňuje potrebu prehodnotenia odbornej prípravy aj postupov. Zistenia si vyžadujú nové zadefinovanie vzdelávania tlmočníkov, ktoré by zahŕňalo nielen jazykovú a technickú prípravu, ale aj moduly zamerané na psychologickú stranu výkonu, technologickú

gramotnosť a etické uvažovanie. Okrem toho sú potrebné väčšie investície do pracovných podmienok tlmočníkov, inštruktáží pre konkrétne podujatia a medziodborovej spolupráce, ak sa má zachovať kvalita a udržateľnosť tlmočenia vzhľadom na rýchle technologické zmeny.

Celkovo táto práca prispieva ku komplexnej, empiricky podloženej a kriticky angažovanej analýze tlmočenia vysielania v reálnom čase ako priestoru profesionálnej inovácie a zároveň existenciálneho napätia. Argumentuje v prospech ochrany a rozvoja ľudskej odbornosti v čase, keď automatizácia hrozí zatienením práce tlmočníkov. V konečnom dôsledku potvrdzuje úlohu tlmočníka ako dôležitého, nenahraditeľného činiteľa vo verejnej komunikácii pri priamom prenose udalostí – nie v opozícii voči nástrojom umelej inteligencie, ale v premyslenej a etickej koexistencii s nimi, kde tieto technológie slúžia ako podpora jeho prace, nie ako jej náhrada.

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List of abbreviations (in alphabetic order)

ABM – Artificial Booth Mate

ACT–R – Adaptive Control of Thought–Rational (a model developed by John Robert Anderson)

AI – artificial intelligence

AIIC – International Association of Conference Interpreters

AITI – Italian Association of Translators and Interpreters

ASR – automatic speech recognition

AVT – audiovisual translation

CAI – Computer-Assisted Interpreting

CI – consecutive interpreting

DG LINC – (European Parliament's) Directorate General for Logistics and Interpretation for Conferences

EBU – European Broadcasting Union

EVS – ear-voice-span

GMM – Gaussian Mixture Models

HMM – Hidden Markov Models

NAATI – National Accreditation Authority for Translators and Interpreters

NCIHC – National Council on Interpreting in Health Care

NLLB – No Language Left Behind

NMT – neural machine translation

OPI – over-the-phone interpreting

RSI – remote simultaneous interpreting

RQs – research questions

SI – simultaneous interpreting

SL – source language

SMT – statistical machine translation

S2ST – speech-to-speech translation

S2T – speech-to-text

TL – target language

LLMs – large language models

HI – hybrid intelligence

Attachments

Attachment no. 1: Interview with Kamila Kamala Galijuš – transcription

TATARINA: So the first topic I would like to touch today is your personal experience in the field and the specifics of media interpreting from your background, I know that you have experience in simultaneous and consecutive interpreting for various events, and I would like to ask, how did you transition to this type of professional activity, and what were the main challenges that you faced?

GALIJUŠ: All right? Well, that's complicated questions. Well, well, yeah, questions, because that is not just one question. So, I will start with the like short consecutive that I did, or the state scientific library for the conference about Roma studies. Well, my position there was only as an interpreter. I didn't really do anything like that is connected to media besides that, that the conference was also broadcasted, like on teams for people that were invited to the conference. But also, I learned after the conference that it was also published like a live video on Facebook, yeah, because it has the feature of live broadcasting whatever. I'm not sure, really what it is called, because I'm not a big Facebook user. So that was in 2023 or 2022, I'm not sure, but yeah, I was still student. I was studying at Prešov University, where the conference also took place, and my preparation before that was just, you know, searching on the internet about the speakers, because I was hired to interpret for my subject, actually, because we had to have a practice for, you know, finishing our studies, because I studied also translation and interpreting. So, yeah, yeah, it was, I don't know, I just prepared a glossary because it was, the topic was psycholinguistics, actually, and it was about the development of speech of young children aged around 5 or up to 5, I think, like from infancy, from birth, like how they acquire speech in several languages. Because the professor, The Linguist that I was interpreting for, he spoke in English, but he focuses on Turkish and Romani and Bulgarian. So quite bit like it was. It was tough to interpret words like from Turkish that I had no idea what they mean, but I was kind of lucky that he didn't use many examples, like from a language I do not know. He did use quite a lot of words of expressions from the Romani language, even though I am Romani, I do not speak the language. So, I was a bit like, hesitant, like, Okay, I might know, like, what this means and that means, but I was still, like, eyeing the Romani people in the audience, like, Am I doing this wrong, or am I doing this right? Please correct me, I am not opposed to that. So, yeah, I mean conference interpreting that is also published on Facebook and on the portal of the state scientific library in pressure as well. I'm still not sure if people could hear me,

because, like, the whole. Microphone situation was kind of odd. Perhaps. What would be also great to tell you was that the professor was also online. He was connected on teams, and he had his presentation like on data projector. Okay, so I was just there, and I'm not it was also kind of funny, because I actually needed to stand next to it, because it was too tall for me, so it was a whole another situation. So this is something you cannot prepare for, of course, yeah, and for my note taking, like, starting with my bachelor year, I started to use iPad with a pencil so that I do not waste more paper than I should, because I like, I care for the environment. So I thought, like having an iPad for 10 years is better than wasting, like, 1000s of pages. So, yeah, I used that. And I remember people were kind of taken aback, because they expected, like, you know, to have printed glossary with me so that I could run through it, and to have, like, a notebook with pen and everything. And I just came with one iPad, you know, ultra professional. So it was, it was really good that I had it with me, because when the professor, like, got way into his lecture, it was quite hard to follow his train of thought. Because even though I studied psycholinguistics, I studied it only for one month, you know, or one semester, let's say no. So, yeah, that was that was very interesting. But I think a lot of interpreters have this experience when your speaker is, like, going on about his topic, not really caring that you're doing short consecutive, not like, you know, having an hour of speech and then producing something No, short consecutive. So a great help to me was having his presentation. I didn't have it before. He didn't send it before, but during the conference, he had quite like, a few slides that would help me during that, especially with the foreign words and everything. So I was just like leaning and looking. But yeah, yeah. And that was also the last year that the COVID was done consecutively, because then I went to the organizers and I said to them, like, this is impossible to do it consecutively, because you cannot have your speakers that are absolute professionals in their field, whether it be some social field, or linguistic or whatever. It is super hard for the interpreter, and I was the only one there interpreting, so I had no colleague to rely on to, like, help me if he can or she can. So yeah, that was tough. And I, I mean, it was a great learning experience for me, definitely, and to see like my strong suits and my not so strong suits, it was great. And I integrated both like to and from English to and from Slovak, because after the presentation, there was also discussion. So, I interpreted the questions from Slovak to English, but the professor also kind of speaks Slovak, so he could also understand my interpreting. And if he didn't like something, he said. So that was really, like a wild experience. But I recommend, like, students should go and see how it is really in the field.

TATARINA: This is probably the only way you can understand it.

GALIJUŠ: Yeah, yeah, definitely, you cannot be taught this during class, like no matter how hard, how well your teachers prepare you, and they are professionals as well, the experience is just something you know you have to live,

TATARINA: yeah, you never expect what? As you said that there are some obstacles, so many details, because so many people involved, that something basically won't ever be written in a book. You just have to go and experience it. And this way, my next question would be, what are, in your opinion, as a practicing interpreter, are the biggest cognitive and linguistic challenges you face while this either simultaneous or consecutive interpreting. And how do you handle this pressure, whether by some practices on spots or is does this lie in your preparation process? So, if you could elaborate on that, right?

GALIJUŠ: So, during like interpreting as I have done, because I have done interpreting like in person, consecutively, in front of the crowd so everyone could see me, I was basically on stage, and before that, like to deal with the pressure and stress I only had, like one tool to help me, because when you're stressed, your body tends, like shrink on itself, right? And I learned this from interpreters at my school. My mom is also an interpreter, to just shake out my lips and to go into the space, basically, to make myself as big as possible of other people, and to like, be brave enough to take my place in front of the people you know, and be confident, basically. So this is what I did before, and I also, like, prepared the glossary, so I wouldn't go totally implied into the conference, or to other, of course, situations where I intervened in. So yeah, this is, like, my, my dealing with the I would say, what cognitive pressure of it, but during interpreting, if you're asking me about the pressure of code switching, that is, you know, like when I'm interpreting, I am not speaking like this. When I'm interpreting, I'm much more fluent because I know what the speaker said. So, my brain just takes the text as it is, and I just it comes in here and goes through there, and I do not like care if the speaker makes the mistake that's on his head, not on mine, but the first thing the speaker will say is that the interpreter made the mistake. So, if it is like, short consecutive, or whatever consecutive, and you have the speaker in front of you or next to you, or whatever, you can talk to them. You can always say, like, okay, please repeat it and I will translate it. I will interpret it again. No problem. But luckily, I did not, like, have this problem, but I know some people did anyway, yeah, but besides, like searching the topic, you're supposed to interpret, it you're supposed to interpret, and then, I don't know, trying to soak up as much of the terminology as you can before, like two evenings or just an evening before the conference, is fine, But maybe, like, in 10 years, I wouldn't be

saying this, because, you know, we change as we get old. So of course, of course, if your professional practices or 20s, and we're still quick, because as an interview, you have to be quick, right? You have to think really quickly and make decisions quickly, then it's fine.

TATARINA: But yeah, and we also have no idea which advanced tools we will have, because they are changing every and every moment, and it will be like our next topic, just in a moment. But to kind of close this section, I would like to ask you mentioned that you once interpreted discussion, and this, I believe, can be more unpredictable and more chaotic. And this also can possess another like stress. For example, the topic can change unexpectedly and something you are not prepared of how you and the tempo of people speaking can also be fast, you know, also the dialect.

GALIJUŠ: So, I interpreted a discussion twice. Actually, the first time was still at this Romani studies conference. And this was a very a professional and nice discussion. You know, there wasn't like, any heated arguments, or any like people having loud opinions and feelings that she needed to interpret. It was like straight to the topic, questions that made sense, no problem at all. And the commentaries will also like, yes, the tempo of the speech sometimes, from some of the experience there, was quick. But when you were in this situation, like I've been interpreting for an hour, and it was like in the heat of the moment, because, you know, your adrenaline is high, you don't really mind that someone is speaking fast. So my brain was kind of into the space that, okay, I can extract what is important from that speech for my other speaker to interpret it for him. So that was okay, but once I was interpreting simultaneously for the an agricultural ministry of Slovakia, and yes, and, like development of country. And it was a conference organized by the Technical University of Žilina and the agrocomplex from Nitra, I think. And it was in Nitra as well, and it was about carbon emissions and woods in Slovakia. So something that I had, like no idea about, and luckily, the speakers there, the Slovak speakers as well, but the Italian and Austrian speaker that we had sent out their presentations before, like, two days before the conference, I think so my colleague and I, we had like, enough time to prepare. It wasn't like very, very good experience, because the technician there, he didn't put us in one booth because it was this booth that you can move around, right? No, he made two cabins so we couldn't see each other. So, we just sent an emoji like messenger if we wanted to switch. That was crazy. That was absolutely crazy. But the discussion there, that was, like, if there is an interpreting hell, that was it, because the people there, the Slovak people, they were from, like, they're the carers of our woods, right? They wear their uniforms, their green

uniforms, and everything. And there were men and women around, I would say, like from 35 to 60. And the discussion got so heated that we just, we stopped interpreting. We stopped interpreting because people were speaking like together, like three or four people, they just went right in, and I couldn't hear them. Well, I did not, I did not know what they said, and they didn't want us to come to the podium, to the stage, so we just stopped interpreting and let them handle things however they wanted. You know, if they wanted the fist fight, that's fine, but I am not like going to interpret for a ring where people are going to fight. So that was, that was a challenge. But after, like, the passions cooled down and everything, then people had, like, normal questions to the topic. But that was, that was a tough experience. And honestly, I was kind of scared, because it was my responsibility as an interpreter to make people understand each other, right? So, like for 10 minutes, I was quiet, and I did not know, like what to say. I didn't I didn't even see people wearing their headphones anymore. You know when people are just shouting and saying, no, you do this wrong. And, blah, blah, blah, you are going to cut out all the woods and sell them because you're a capitalist. You know? It was, it was tough, but, yeah, this is not something I would want to repeat again. This experience.

TATARINA: From what you've said now, I conclude that when you're an interpreter, you don't only rely on your own professional level, but you're also dependent on the speakers and the technicians. And are you always in touch with speakers beforehand? Do you know do they know that they have to somehow communicate with you and prepare you, or do you function separately?

GALIJUŠ: Well, yes and no, because when it's a small conference like the work for the Ministry of Agriculture or the work for romantic studies, then yes, they do know they will have an interpreter on site, and that it is polite to send the presentations before either to the organizer or to the interpreters themselves. But when I was interpreting for Roma spirit, and I did this for two years, actually, that was my first ever interpreting, I think Coronavirus period that was simultaneous with the glossary, of course, but I was interpreting from Slovak to English and, well, what I had before was a script, because there is a gala evening, right? So I had a script with the lines of the hosts, but it is, it is one thing to be the script and another for the cameras you know are rolling. And then the hosts also say whatever comes first to their mind. So you have to listen and you also have to read. And that was like, okay, it is not interpreting from paper, and it is not like total simultaneous interpreting. It was a mix of both. But what we had before was the President's speech, so that was just done from a paper. That was okay. It went

smoothly. That was fine. But the rest of the evening, it also it was a surprise after a surprise. You know, of course, because also, like the people awarded, they do not prepare their speeches before. It is all very spontaneous, yes, yes, sure. And some people cried also. So, there was not very we had to wait quite a while. So, you know, your listeners don't really hear anything. But if someone is sobbing on stage, what do you say? You know, like cries in Slovak but also the award is presented. The words are presented, like by people from abort so like government planning potential is for Roma communities or for minorities from other countries, such as, I don't know, Slovenia, Romania, the Czech Republic and so on. So, if we have someone speaking in Polish, and neither I or my colleague speaks Polish, then we say just, you know, speaking in Polish. I'm sorry, but I did not study four or five languages, you know. So, this is like how we dealt with the situation both years,

TATARINA: Okay, understandable. And now I would like to switch to the like before we conclude to the topic of the rise of AI advancements, specifically in this professional area. I don't know what your experiences with these tools are, but maybe you have something to share on how your work as an interpreter has changed, and are you yourself using any AI tools to assist you in the live interpreting,

GALIJUŠ: Um, no, because I also did my diploma thesis on AI, but in translation and in literary translation. And that was, that was fun, but I haven't like before. Before chat GPT or Gemini, or any of those accessible for free large language models, because all my interpreting, I think, were not the last year of Roma Spirit, there was already ChatGPT on the market, I think, but we did not use it. We use the bell, which is artificial intelligence powered, let's say, or it is more like a neural network. It is not a chatbot like ChatGPT. Whatever there is. I don't remember names of the Chinese and French ones. I'm sorry. So no, I know that perhaps some people create glossaries with it because, I mean as a tool for that, okay, but I don't really see the necessity of it. You know? Because if you have a machine, create your glossary, and you do not have the experience of typing those words and remembering their places, then what good is that glossary? You know? So, yeah, but I think during my studies, we also talked about like having automated simultaneous interpreting, like in development, I think, and that was last year, so I'm not really sure how that would even work. So you mean, you were training machines which are like, potentially, will produce this, but how? But why would you? Why would you? Because the machine, it can learn quite a lot, but first of all, it will take a lot of money to train such a machine. It will take billions of data, and also you would need

permissions, like from the people that were included in the research or the data mining or whatever, to have their voices used, right? I just don't think it's a good idea, because you know differences. If you have a human interpreter, either on site or online or whatever, you can always ask them, and that specific thing is something that a machine don't really, they, I don't know the human aspect is, for me, it cannot be replaced. Okay, yes, we can have automated messages. We can have automated like, what is it called? You know when you call someone and they have an automated voice, like telling you to press one to ask this question, blah, blah, blah, this, this is fine, but during interbreeding, I think because, as we discussed before, there are also unexpected elements during the presentations or discussions or something. Can you imagine a tool or AI or anything that would be so powerful to interpret spoken speech the way human interpreter can, because that would require a whole brain, and we cannot do we cannot program a whole brain. We can program some neurons, and, you know, just artificially fill them with data, but you cannot mimic speech for real.

TATARINA: Absolutely, I have also analysed an interview with an interpreter for Olympics, and he had this very nice saying that machine will never see a wink. You know, they will never see what person means. So, I think it's you already answered my next question, whether you see it as a tool or a complete replacement?

GALIJUŠ: No, I think, like AI in interpreting is just a waste of money, you know, because we do not need it. What we need is, like better microphones and headphones. And, you know, like technology that it's not from the 90s, but from now, and, like, more space in the booth, I would say it's a better light, you know, that's maybe a better ventilation, because I've been in samples that are just, you know, I felt like I was gonna suffocate in there. So, I just opened the door for a little while, let some air in. Then, you know, continued my work.

TATARINA: I just wanted to ask whether you feel like in your professional network – do these opinions prevail – for example colleagues which lean more towards using AI tools? Maybe you have heard some situations, maybe they have shared their experiences when AI failed? When it was successful? Maybe something about that, you know.

GALIJUŠ: Well, not really, actually. Because as far as I know, neither me nor my colleagues we do not really use AI. Because many people use it for fun, but speaking professionally – we all know – that this is a machine filled with words, and provided with equation for statistics, like, which word will go next, you know, based on probability. So, I don’t think that if you are

a linguist, or an interpreter, or a translator, you don’t trust the machine to do your job for sure. And that is, I think, the general atmosphere, I would say, among interpreters and translators as well. Um so no, I look, I think that ever since we got machine translation, uh, everyone is saying that translation and interpreting are dying jobs, and yet we persist. So uh I wouldn't I wouldn't fear. This is just like this is a new trend, okay? Everyone is a bit uh like crazed up with it, but I think it will die down. It is already dying down if you have noticed really? Because yeah, yeah, because many people learned that if you're using AI uh that is like chat bot, it is it is a disaster for environment it uses a lot of drinkable water to cool down servers. So people are just not using it because it's not worth it, you know I would rather drink some water than use it for a cooling down a machine that isn't helping at all. There is also one other thing, uh considering Slavic languages when using AI and that is it confuses Slovak with Czech with Serbian with Polish. So can you imagine having a machine as like such machine translate from Slovak to English, it would go not it wouldn't go it wouldn't know which language to choose..

TATARINA: Okay, interesting. So, you mean even if in the settings when the language is prechosen, and you set it for a specific language? Even in the meantime it can still switch automatically if it recognizes some parts of the...

GALIJUŠ: Yes

TATARINA: Wow. This is something I have never heard about. But I've noticed, for example, when I myself resort to using AI tools, I always use them in English because for some reason it just doesn't make any sense in any other. It just feels so smarter in English and so useless, as you said in other languages.

GALIJUŠ: Yeah, of course, because it has multiples of the data, I used for training AI is in English. So naturally, the bigger the number of the data used for training in one language, then of course the machine is going to be professional like proficient more in English than it is in Slovak, which is a much smaller language, with even smaller resources to train on, you know. um so this is I think why uh it just doesn't work with like slump languages I would say. And it's also funny, you know, because there's also like bias in the machines. um because, again, all the data they used to train. Yes. I just, I don't really see the point of using AI. I think like using DeepL is fine because it is just a translator, you know, you have two windows and you put one word there, one put them there, okay, fine. And if you have, I don't know, Glosbe, which provides like written examples use it. That's your best friend, right? Or the Slovak national

corpus I don't know if you use that. That's pretty like having a parallel text. That's your best friend, but AI it's just it doesn't think it just counts and it counts wrongly.

TATARINA: okay I understand. I understand. So you see the future of the profession in more of like when we compare the tools which interpreters used like 50 years ago, they are very different and in the future they will still be different, but you think they will evolve like not in terms of AI, but just more advanced and more advanced way for interpreters to somehow gather the data and just to make it more convenient, but not for it to do that for themselves.

GALIJUŠ: Look, interpreting as it is – is inconvenient. It's just it comes with the job. It's fine, but I don't think there's a more useful tool than a dictionary, and it doesn't matter if it's a book dictionary and it's a thousand pages long or if it's online dictionary that you can quickly search something there. But I don't think we need any more or better tools. We need um a working computer, a booth, or have a glossary with us and better microphones also. I said that before because I don't know why my experience is that I okay I take the microphone or like, you know, whatever microphone I have on hand and it just it stops working. So, this is it. This is like all the technology we need...

TATARINA: It gives you more stress even than you had before and it's paradoxical how it has nothing to do with your professional performance, but you're very much dependent on it. So yeah, I can understand that. And as you said for dictionaries, like, it's true that the difference is only that now I can have the outcome of a dictionary match faster than decades ago when I would have to scroll through, but I will never I would never trust the machine to choose the word for me. I would still want to use the word myself to find the word myself because yes, okay this is very interesting and very insightful also because I have worked through different articles also regarding biases and many, many works and case studies, and some things that you have mentioned, for example, I didn't find in the articles before people never mentioned the technical side the side of the speaker, and so this is this is very interesting. And also, so much from you, given the fact that you are rather a young and starting interpreter.

GALIJUŠ: Yeah, well, I'm 26 and I finished school last year. So yeah, but I'm not the norm. I've not the norm because my classmates, um, I don't know why, but they were also very scared of going interpreting. Because also, yeah, because of the cognitive load and everything, but I think I sometimes prefer it the translation, you know, because you go, you interpret, you come

home and that's it, you don't take your work, you know back to your place, but with translation, you're always translating you open your eyes and you're translating so yeah.

TATARINA: Yeah, okay. Thank you very much, Kamila. And once again your insides are very - I understand it already - that they are very helpful for my thesis and uh I will um follow up with some kind of um resume for our interview to make sure that you're okay with it and uh to double check it.

Attachment no. 2: Interview with Cecilia Pozzi – transcription

TATARINA: Okay, so just to make sure all the background information for on you, I would begin giving in my thesis, I found on your official website and your Linked in uh page. So maybe there is something you yourself would like to say as some kind of basic information to introduce yourself and your activities?

POZZI: Sure. Yes. I'm Italian. I'm hundred percent Italian. I started studying well, English, maybe in lower secondary school and then I continued to a high school with foreign languages. And my great luck was that I started studying Russian when I was just 14, which literally is quite rare. There was a very good school. In my hometown, by the way, and so, I mean, this helped a lot. I work with English, Russian and of course, Italian, which is my mother tongue, uh 15 years ago now maybe I also started working in cross-interpretation, so from English into Russian and from Russian into English, but only in certain sectors and in certain conditions, of course. And that's it. I mean, I don't know if it's important to write it write it, I graduated in conference, interpretation in 1997 from the University of Bologna, the high school for interpreters and translator. And then I started working as a freelance I've been working as a freelance for the last 28 years now, which sounds a bit scary, but that's it. Then I also taught um interpretation and then at the University of Genova, mainly Russian into Italian interpretation, like consecutive and simultaneous and also live interpreting, but also some English, some written translation with English. And I don't know, more or less this is it. I work as a freelance. And then, I mean, considering your thesis, I never tried or looked for this experience on TV. I didn't like the idea of working on TV was too scary for me. So, I never really pursued that, that kind of career. But when everything happened in Ukraine in 2022, um this particularly this network, like Sky News, Italy, but also an agency that works for other Italian channels. And they found me, uh like um in one case, it was one colleague of mine who already worked for them and they simply asked, do you have anyone having both Russian and English, because they would be really helpful for us? And that's how I started. And I don't work

that often now. I mean, the beginning, like in 2022, I mean, sometimes it happened that I worked ten times a per month live uh, then things like because these channels also have their own in-house interpreters, so now they tend to call only when it's really needed. Sometimes they call and I help. I do have more experience because some events that in the past were only in person in presence now, they get streamed. But that's a bit different. I feel it in a bit of a different way. I don't feel as much pressure when I know it's being streamed. Yeah, of course, because this has this aura of oh my God, I'm live on TV and everybody's, my friends are going to listen to me and colleagues are.

TATARINA: Well, uh the first topic I wanted to start with uh were the challenges of this profession and my first question would be to you – could you share a specific experience from your, as you said, broadcasted or streamed interpreting work, especially in the context of this high-stakes events? And maybe a specifically when you've encountered some cognitive or linguistic challenges and what particularly made this situation demanding to you as the interpreter?

POZZI: Well, that happens quite often. Well, there are some times when you understand everything, you translate everything and you're really happy with yourself, then there are times when you are interpreting and then anything can happen. It can be that you have a sound problem. You may have a speaker who has a strange pronunciation, or it may be that you don't know a word, because we are human and so, that I mean, there are several occasions. Once we the journalist was interviewing, I don't know if you preferred to have only one, but I have a few small examples, of course. So, once they were, we were, actually – because then you become part of the game, they were interviewing like a pretty famous person, but this person was in a car, with very bad connection. So, he was speaking, the sound was coming and going and coming and going. And in that case, I will tell you, I've also written my thesis about neurolinguistic programming applied to interpretation. So I've analyzed myself a lot from a cognitive standpoint and I know, for example, that when I'm in totally in control of this situation, it's because I can hear okay, but I can basically see what I'm saying, you know, so I it's as if I was seeing a transcript almost of what the person is saying and what I'm saying, what is coming out of my mind mouth is sort of like a one to one, I mean, of course, not word for word, but it's really faithful. Like I'm understanding, I'm saying everything. When the sound comes and goes, when the pronunciation is difficult to understand, you and you sort of have to survive. So, I had never been particularly good at that because I tend to be very demanding with myself. So usually in the past, at the beginning of my career, when I did not understand something, I would sort of I almost felt that I had to let the public know because if I have a

problem, I mean, it it's okay. They have to understand because when I don't have a problem, it means I'm understanding everything so they can trust me. But it doesn't work like that because if you stop, they don't know why you're stopped or be so basically you learn to survive, which doesn't mean deceiving your public, your audience. It means giving your most, doing your best to actually put the message across in spite of, you know, a lack of understanding, it can be your fault, or it can be their fault, or it can be no one's fault. But you have to keep going. And you try to be general, not to say things that maybe be compromising or may betray what the person is trying to say. And of course, you don't like it because you sound your being vague. You know you're being vague. But you try to just, you know, to survive and keep going, being as faithful as you can. So, this for me was a pretty tough, a pretty tough challenge because, again, you have to keep going, but as soon as you can, you have to again go back to saying everything and I know what I'm saying. So, it's just, you know, just surviving, you know, skipping that little part and keep going. Or if you don't know a word, again, if you can, you look, you look it up, but, of course, another one of the challenges of being in live on TV is that at least in my experience, most of the times you're alone, when you work in at a conference, unless it's a very short assignment up to 40-45 minutes, you know, these are the rules of the profession, right? If it's up to one hour and it's blah, blah, you can be alone. But otherwise, it's always two of you. When you're live on TV, you are basically alone because even if you have a colleague that later on is going to translate a different language, you're there, you're on your own. And it's twice as difficult because if you don't know a word, you very hardly will you be able to actually look it up because they (speakers) keep going. They keep you hard to keep going, right? No one can help you. So, yeah, I'm a perfectionist. So, the times when I had to skip a word and I mean if it's an adjective, okay, whatever, then I'll look it up, but I'm not, you know, hating myself for missing that. But if I miss something and I know it was important, it's hard for me to forgive myself. I'm learning. I'm still learning to do that. And at the same time, I just look it up immediately. If I can actually also cognitively, if I am skipping a word, I try while skipping it to write it down anyway. So, it's a bit of a, it's more than multitasking. Yeah, it's multitasking to the power of 10. Because you are listening, translating, you know that you're broadcasted, you have a lot of pressure and you also trying to keep improving. So, I don't know if I answered your question if you want more detail.

TATARINA: This is actually very interesting because you mentioned the cases which other interpreters haven't mentioned before, and to maybe continue updating it, it's also flows to my next question. So, is in your experience, how do pressure of this particular life events uh are different and uh how do they impact your work? For example, unexpected speaker changes or

for example, rapid speech or as you have mentioned technical disruptions. So maybe challenges which you find unique to be in such settings compared to other forms?

POZZI: So, rapid speaking, fast speakers, well, you find them everywhere, uh especially in the medical sector, for example. So, I mean, the fact that they speak fast, is not so much of a difference. And there's also a good side to if you have good journalists, meaning that they cooperate with you, sometimes when you have an interview, you may manage to get the questions in advance, which at least helps you know what they're going to ask. Of course, and that they can change, they can improvise, depending on the answers they get. But that's a minor challenge, it's less than when you are maybe at a conference, and they didn't give you anything and you're just translating everything off the calf without having a script or anything. So, the questions, if you have them beforehand can help. But regarding differences, one thing that I immediately noticed is the multi-tasking sometimes is even increased because, at least in my experience, when I interpret live, I'm in this small booth and it has three different displays, even four. Plus, my computer, which I keep, you know, just in case for glossaries and quick searches. So, and you have the life program going like the one that people see from home they're watching on one screen, and you almost don't pay attention to it. But, of course, you have to watch it. And then you have these feeds. So maybe you know that you have to start translating a press conference. For example, once I remember it was the press conference Kamala Harris and someone else, and you see the podiums, yeah. And you see all the, you know, bringing the texts. And someone says in your headphones: “oh, you see, they're almost ready” – and you say “yes, I'm seeing it”, you know? “They're almost ready, they're almost ready. You should start soon! Are you ready?!” - “Yes, I am” – you response. And they talk, they speak to you while you just would like to have, you know, your concentration fixed on what the ones you’re interpreting are going to say. Well, sometimes you have, you know, the directors, the producers, asking whether you're ready and so on. So, this thing of having, and then sometimes they say, - “we're going to broadcast it for you on display one”. So, you're ready and you'll have, of course, your microphone is working already, but you have your volumes connected to display one. And then display one doesn't work, and you have to tell them while pressing another button, that you can't hear anything, so they go ahead, go to display two, and then you have to change the volume down on display one, up on display two. I mean, I don't know if this happens on all the TV channels, but when you're broadcasted live, because this is a news channel. So, they have the news can they keep going so they're talking about Italian politics or sports and then, okay, and now we go live from Washington. Now we go live from Moscow, and you have to be ready. And so sometimes, I mean, this is so different from

a conference, you go, you're in a booth, usually with a colleague, you've got all your materials ready, your keywords. And then when they start, you know that it's your turn and that it's your colleague's turn, while you're interpreting live on television – then you're on your own and you and you have to keep track of everything. I mean, this is probably one of the things technically, this having, you know, so many people around, but you are alone. And in conference you have the speakers and your colleague and yourself. There at the television you have the sound technicians, the journalists, they're trying to go live, and they keep asking, "are you are you speaking?" – "Yeah", and I and once I said, - "don't ask me if I'm translating, if I'm translating, you hear it". I was translating and I had to detach myself from the live streaming to say – "yes I'm translating", and then again on TV. This was pretty stressful for me, especially at the beginning. Then you get used to it. And sorry, one more thing. I'm a bit of a chatterbox. I don't know if you're so lucky with this interview because I speak a lot. But one more thing, this is a challenge, but this is personal, because it will not apply to everyone, but we interpreters should, and this is also goes to the piece of advice for new generations, because I also taught to university, I feel close to the new generations. We interpreters should, if we can, stop or avoid being obsessed with what other people we think about our performance. The best thing is to do your best before, to get ready, to study, but once you're there, forget about who is listening to you, what they're going to think. If you make a mistake, you can kill yourself later. Kill - meaning, you can punish yourself later, and you should forgive yourself, but you can think about that later, because I'm saying this because I noticed that particularly going live on in streaming or on TV, the number of listeners or the categories of listeners increase for me at least. So, in the past, it was, oh my God, I'm at a conference. There's a lot of publics, like maybe it's, you know, doctors and I'm going to speak to doctors not being a doctor. Then you start making a little mistake and you think, oh my God, what will my colleague think of me? What will she think of me? Because I made this stupid mistake. And your mind, like what I was telling what I told my students was that it's like the computer CPU, yeah? A hundred percent, your hundred percent of memory and concentration should be on what your translating, what you're interpreting. If you start, taking ten percent to "oh my God, what will the audience think?", then 10%, "oh my goodness, what will my colleague think?" - then you're already down to eighty per and then maybe 10% is writing down the things that you didn't get so when you're there you should be 100% of what you say and forget about the rest, but going on TV at the beginning in particular and if you don't do it often, because when you start doing it often, it becomes like routine. Yeah, okay, who cares? If my neighbor recognizes me and then tonight is, oh, is this I heard you on TV. Who cares? Yeah, it's like I'm just working. But at the

beginning I was like oh my goodness, I'm interpreting Putin today and then maybe that colleague who is a Russian mother tongue will be listening because this is a national TV, and if I make a mistake she will hear maybe a bit of Russian and she will think, oh my goodness, Cecilia translated that word so bad, and then, oh, and then the people in the TV oh, they have so there are so many colleagues, that worked for them. Maybe I'm not one of the best. Then everyone's happy. You could have done fantastic and maybe you're personally not happy because yeah, they're happy, but I know that I missed two words. So, this is also and it's emotional, but it's also cognitive. Those psychology, cognitive, and then also, you know, stress, I also teach a bit of stress management techniques, for example. I hold a public speaking courses and performance stress management. So how to get ready for an assignment, how to manage your stress level during the performance and how to forgive yourself after that. I only have held it twice for now, but it worked well.

TATARINA: This all seems to be a part of this uh multitasking profession. And since you've touched this topic, I would very much like to ask you about your preparation process, maybe some specifics to it for these live assignments. For example, how do you familiarize yourself with subject matter? Because you've said that, oh, I interpret doctors not being a doctor and there are there are many things like this and maybe to combine it to save time with the next question. So, about preparation process and maybe some strategies that you rely on, maybe because you said you have so many years of practice. So, maybe there is something that you use and which has proved to be good for you.

POZZI: Okay. So, I'll try to be a bit fast now a bit. So, preparation, if we focus on like if it's other topics, I look, I look for materials. Now, of course, artificial intelligence, I know it's another question. It can help if you just ask the right questions and you just had a you just use it to speed up like the collection stage, like looking for information on a specific topic, yeah, or how does a train work? How does a traction converter work and or find the articles about this specific pathology disease, blah, blah, blah, for live interpreting my preparation usually starts from - if I know - who I'm going to interpret, because if you're broadcasted live, you may be there ready to translate Putin. But then unexpectedly Mr. Guterres speaks from Rafah, and you are now interpreting from English, while you were getting ready for Russian into Italian. So, this happens. But anyway, if I know more or less the topic and if I go live, I try to listen to a lot of videos and previous interviews with that specific person or speeches by a politician, whoever, like minister Lavrov, or it can be an American, anyone, anyone. And in fact, I tried to familiarize with their pronunciation and also with the words that they tend to use, because there are some recurrent expressions and words in several politicians, or actually, most people

have their beloved words and expressions. So, if it's that, I listen as much as I can. And I also try to listen in my day-to-day life. Like I'm cooking and instead of listening to the Italian, you know, TV news, I choose a BBC, or I choose a Russian channel just to have it in the background. So, it's many levels of preparation. It can be focused on just listening and writing down words. It can be listening and interpreting, and so working on my actual simultaneous abilities, it can be when I'm tired, I leave it in the background. Okay I'm not listening, but it's in the back. And as I'm doing other stuff, words still remain in your head. And that's for the listening part and the simultaneous part. Then, I'm a very "paper person", so I need to write down things. One thing that works fantastically, and I also taught it, is when I'm learning new terminology on a specific topic, anything, but also for live TV broadcasts, is to try and group words by sub-topic, like now, I don't have them here, but at home, I have a lot of pages where I, for example, wrote military terminology, unfortunately, with all the weapons in two or three languages, the weapons, the missiles, the rockets, blah, blah, blah. Then I have the one that has "an angry face", like a group with all those expressions when they say that is "the presumptuous" that is vile, that is, you know, miserable, or they are hypocrites, all these words. Then I have the good ones like I don't know, cooperation, friendship, and I try to divide them by conceptual groups and that helps a lot. Association has me, because I even know I even know in which part of the page I have the bad words and the political ones and the military ones. So, it's quick. If they say something, then of course I have my glossaries, which I tend not to make by AI but by myself. I don't prepare them automatically, but I actually write them myself. Like I created a table very, you know, basic. I create my table. I have my three languages, and I write them myself. And then, of course, if there are an alphabetical order, this can be easy because if you're translating and you just do find and sometimes once I manage to actually find a word in the glossary by myself. And also, if I have words that are similar in Russian that happens quite a lot, uh they like they have the same prefix, so they have the same ending. I write them like uh near each other, but like the difficult part in big ladders or highlighted. Yes, this is this is the preparation part and then you said strategies, but I think that this is quite similar working on conceptual group and mixing all our perceptive channels. So, listening, seeing and making it part of it like there's also the physical part. But it's usually put together the listening part and the visual part and then have them divided conceptually in color coding also like it's something is hard for me, something related to the war, maybe it's red. And then if it's softer maybe it's like peace and um and negotiations, it's green, in Italian, we say green like hope. So, I put it in green. I mean, it's just personal strategies. Yeah, this is very much individual, but uh the concept overall can be applied to everyone. The conceptual

grouping is vital. I also tell when I taught interpreting Russian into Italian and Italian into Russian, I always said like we were talking about economic stuff, you know. So, I said, why don't you have to my students, why don't you have a group of words that are all related to taxation and fiscal policies, blah, blah, blah, or something else is all about expenses and spend expenditure, something else is about production and technical stuff, something else is about, you know, and I think that helps. Okay. It does help me.

TATARINA: Okay, very interesting. And then I would like to switch to the part of uh incorporation of artificial intelligence powered tools. You have mentioned that, for example, you still keep writing it yourself, because this is a part of familiarization. But uh maybe there are other AI tools, which you have, for example, incorporated in your practices, such as, for example, speech recognition or glossary apps into your workflow.

POZZI: I'll tell you what. Unfortunately, I'm beginning to feel a bit old because I don't like this so much. I mean, I attended a course of our national interpreters and translators' association, where some colleagues introduced how to use speech recognition. And yes, I think that would be interesting. The problem is for the moment that as far as I explained, there's a lot of technicalities behind it. Like if you want, like if I'm live on TV, for example, I can't use speech recognition because I'm not listening and watching on my computer. So, I don't have the subtitles in real time or the numbers in real time. I would have to have the same thing on my computer while I'm translating and then have this system on. And maybe it's easy, but I haven't learned to do it yet. What I did already used was this mainly as I told you for the search part. I had to work for example, I don't know if I'm going to work on the ninth of May. I hope not. But when Putin speaks on the ninth of May on the Red Square, because it's the liberation day in Russia, he always mentions a lot of past battles, going back to the Middle Ages and my history knowledge is not so strong I know the most important ones, but sometimes it mentions regions. So once, for example, I asked Chat GPT - can you please make a list of all the most important battles in Russia, Ukraine, and then in that area, like in Eastern Europe and Russia, and I got a whole list of names, for example, or, yeah, to give me the list of all the ministries of a certain government. So, it's mainly for search purposes. Speech recognition, I think, can be helpful. As far as I' concerned, the problem is cognitively that as if I had a system that actually suggests me numbers, first, I know that in 99% of the times I think I can trust the system because numbers is not so difficult for a system to recognize. And that would help me because numbers are always a challenge. And if I had the number written instead of having to see it in my mind or write it down, that would be great, um if it's actually a transcript of what is being said, I think it may be a bit tricky because cognitively, this is similar to when a speaker

gives you a written speech just before starting to speak. At conferences, I mean, because then you have to do a mixture of listening and sight translation, and to me that's very difficult because my way of checking my performance is actually to see what I'm hearing in my mind. So, if I also have the script there, it had it, I mean it adds the cognitive task. I' listening, seeing in my mind what they're saying to check if I'm understanding correctly and interpreting correctly. And then I will also have to read this stuff. So, as if I had three displays in my head. So that's not and with artificial intelligence at the moment, I would still be really worried is the system understanding correctly? Because it changes names. It changes like I heard a colleague saying that she went to a conference. She wasn't working, she was just listening because they had decided to have automatic subtitles generated by AI on the screen in the conference room in in Italian from English. But the speaker was a Palestinian speaking about the Jews with a bit of a difficult pronunciation, so "Jews" became "shoes". Yeah, and the people read that "Palestinians were taught to hate shoes", so that's horrible, you know, and if a person understands English, they logically understand how that could have happened. But if people don't know the language, using subtitles or, you know, speech recognition and I wasn't a hundred percent sure that it's actually telling me the truth, I would be panicking. I'm trying to see it in my head. I'm translating. And I'm also following that thing which may be suggesting the wrong things...So - hell yes to numbers and I'm not so sure so far about the rest, but maybe I'm not in innovative enough. I don't know. And sometimes you feel like the context is so important that you cannot allow this to happen.

TATARINA: This is ridiculous and something like this, just this is an anecdote, but unfortunately this is a professional practice because you mention it. So, this is just and maybe I feel like you have already answered this next question, but this incorporating and introduction of AI tools has it influenced your sense of professional autonomy? Or, for example, have you noticed some positive or negative effects on your professional life?

POZZI: Yeah, I mean, we ask, like, among colleagues, we often joke saying we would get to our pension, or will we be will we be kicked out of the market in two or three years? So, on the one hand, yes, I think artificial intelligence can help as I said, as a tool. Like even a phone at the beginning, I remember, you're too young. But when we had the first phones, you were saying, oh, come on. Now people call home to say, I'm almost there and you can start cooking. And we thought it was funny, yeah, why do you need to tell people that you're almost there? Now we do it all the time, but sometimes we are slaves to phones but not always, so every tool, including artificial intelligence, depends a lot on the intelligence of the persons using it. So, if we use AI to as I said, refine our searches, refine our speed up, the preparation process, learn

more about it, totally new topic, or even be helped with numbers, the speech recognition, why not? Why not? So sometimes, yes, we do feel threatened because at least like written translations have dropped considerably. I don't do a lot of written translation. I still do it. Luckily, I have some clients who don't trust artificial intelligence so much. So, because they want a proper text, they usually give it to me. When they try to give me something that had been machine translated, I said, listen, it's really bad. I have to do it again. So now they basically give it to me. I know that in some contexts, machine translation is doing fantastic things. So yes, we'll be worried in terms of having less and less work. My hope is that in certain contexts, now there will be, I think, I don't know. I hope it's going to be a bit like during COVID-19 when we had everything online and we thought, oh, we'll never go back to in person sessions, you know, we'll have everything online now. It's not, we can see now in 2025, that it wasn't the case. Now we're back to many things in person. Sometimes they're hybrid, sometimes having the remote connection helps, it involves more people and if you have, I don't know, a strike, a train strike or bad weather, you can say, okay, we were meant to meet in person. Can we do it online? And that's a good thing. But I see that meetings in person keep going, and I that's my hope with artificial intelligence as well. Sometimes I listen to AI-produced translation and think oh my God, they they're translating better than I would, but they're not human. Maybe the tone of voice will also improve. I don't know, maybe it will improve to the point that they will sound much more natural. But I also work in sectors where I think that AI will help a lot in translating, for example, tax documents, agendas, they already do it, but well like I work in the pharmaceutical industry but not on the commercial side but like inspectors coming to visit sites and see whether they actually produce drugs properly. And sometimes they have observations there. I don't think a tool would be able to translate all these uh, you know, heated conversations when specialist and an expert is trying to explain their approach to another expert and they go and try, you know, so I do think that work will decrease. But I also think that in certain fields and um I hope humanity will remain part of the of the game in essential part of it. Also, when I worked with children with autism, you go to their families, there's an American consultant. They teach this child how to speak. An example. This Italian family was teaching their child to say – “Daddy, can you please give me the water?” In Italian, you can use a nice tone of voice and not say the words “please”, like “Daddy, will you give me the water?”, or something like that. And I would I was interpreting to this American person what was being said, and she went – “Oh, he has to say please! No-no, they have to teach him to say please! Because this is not good!”. And I said no, let me explain in Italian, you may not use the word “please”, if your tone is very kind. Children don't say all the time like in English and still they are polite. I don't

think artificial intelligence would be doing that. This is a counterpart, so I hope we can still be useful.

TATARINA: So basically, just a change in the daily curriculum changes and maybe your role changes. But as you have mentioned, I think there is strong highlight is put in. If the tool is in hands of a smart person who can do their work wisely, then you can see that in the future, the tool will be fine. And the last question, I would like to put is considering all those advancements you have mentioned, do you think there are unnecessary in interpreter training programs to prepare a future those future generations of interpreters and maybe how do you imagine them? How do you envision maintaining of importance of this human element?

POZZI: Okay, um yeah, I have taught at university till last year. I just thought, but for personal reasons, but um yeah, like training programs keep will keep being essential, even more because I think the training programs can really, because they are taught by humans, who use authentic and technical stuff. I think that the essential like the real precious contribution that training programs can actually give, is that having human interpreters who know the tools and use them in their daily practices and know how to manage them or like them, dislike them, how we can exist in a synthesis. We can synthesize the technology using computers, using headsets, using artificial intelligence, using glossaries, and so on with the human factor. And I think our aim is to navigate this technological world and just harmonize it because I think when you manage to harmonize to "humane" it and we say like human aspects and technology, you can get the best out of both. And the emotional part will always be there and empathy and then I don't know if you were going to ask it but I liked your final comment in your checklist saying, what would you tell what would you say to the new generations? And my personal advice is whatever you do, do it passionately, always put a little bit of yourself in it. Like I always say that the best interpreter is the interpreters that disappears, because the best moment is when two people are speaking, or to like a speaker in the public and it's as if people were listening to their own language. So, you have to disappear at the same time when you're working in person, you can make the difference. So, passion, humanity and less ego. So it's human, but the times when I managed to overcome my anxiety and I actually worked better, where the times when before an assignment being really worried really tense, I said I told myself that I was there to serve. It's a service. You're not there to be the best interpreter in the world. You're there to serve, it's a service, you're there to make human beings talk to each other, communicate. So, if you are going live on TV and you think – "oh my God, people will think say what whatever." I'm here to be faithful to what is being said even if I don't agree with it, even if I don't like it, even if it's a person I don't really agree with, I'm there to serve. I'm there to serve communication and

that's and I think that makes the difference when you're there panicking, worrying, if you have colleagues that try, you know, to they steal your client and whatever. I'm here to serve the I mean, that sounds a bit, you know, serve the world that I'm not we're not heroes. We don't save lives. But we can make the difference. This is just so if that's so important for me to actually have our meeting because I believe in future generations and I want future interpreters to be less aggressive, less about themselves, less about no, I'm not giving you my glossary because it's mine. It's about cooperation. I mean, we chose this profession to be bridges between people and then you're not bridges with your colleagues.

Attachment no. 3: Interview with Ayman Alali – transcription

Introductory note from the interviewee:

"My background spans over 16 years in high-level interpreting across diplomacy, law, international arbitration, and policy. I've interpreted for organisations including the BBC, Interpol, the UN, the EU, the UK's Foreign, Commonwealth & Development Office, and the Office of the Prime Minister. The work has ranged from closed-door negotiations to public summits, translating not just language, but intention, nuance, and stakes. Broadcast work makes up less than 20% of what I do. Most of my time is spent in conference interpreting, particularly in diplomacy, arbitration, and business settings. Alongside that, I support organisations in shaping how they communicate—helping ensure clarity, precision, and influence across contexts."

TATARINA: Ayman, could you share a specific instance from your live broadcast interpreting (e.g., on BBC or Alaraby) where you encountered major cognitive or linguistic challenges? What made that situation particularly demanding?

ALALI: In truth, I haven't found live broadcast interpreting to be cognitively demanding in the same way other contexts are. Television content is designed for public consumption, meaning it avoids dense technical detail. The language tends to be accessible, and answers are more performative than information dense. That's not to say there's no challenge. The difficulty lies in visibility and timing, not subject matter. You're live: You're on-air; and the margin for error is zero. You must deliver fluency, clarity, and control, even when the world changes mid-segment.

TATARINA: In your experience, how do the pressures of live broadcast events (like fast tempo, unexpected speaker changes, or technical disruptions) impact your work? What challenges do you consider unique to this environment compared to other interpreting settings?

ALALI: The primary pressure in broadcast is tempo, specifically, adapting to rapid change. You might be covering one topic when breaking news erupts across the globe. For example, I've had to pivot with no warning to interpret coverage of the Korean president's impeachment. No context, no prep, just instant switch. Other pressures include:

• Last-minute guest changes, where the guest you prepped for is dropped and a new one is added on the fly.
• Producers relying on interpreters to "just be ready," regardless of conditions. They often assume that if audio is audible, it's interpretable, which isn't the case. Poor sound quality affects cognition, speech control, and clarity.
• Technical issues, especially with platforms like Skype, which historically degraded audio during live events. Zoom has improved, but Skype's fluctuating compression created huge problems for interpretation.
What's missing in many environments is an understanding that clarity under pressure is physiological and cognitive. You're not just relaying speech, you're processing and reformulating meaning in real time.

TATARINA: Could you walk me through your preparation process before a live broadcast assignment? For example, what kind of research or familiarization do you do with the subject matter or the speakers' styles?

ALALI: Preparation begins early. On my way to work, I scan headlines for global shifts that could impact the day's coverage. At the studio, I check in with producers and the interview desk to understand the segment plan. If topics are familiar, like Middle East geopolitics, little prep is needed, but with new or unexpected topics, I research:

• Core facts, numbers, and timelines
• Local geography and terminology
• Guest background (especially if they're active online)
Researching a guest's social media handles comes handy but it is challenging due to anticipation issues, making focused listening crucial. Guests may share differing views on their personal social media compared to televised appearances where they represent official

positions. I also clarify the editorial intent by asking the producer and presenter:
• Why are we covering this?
• What do you want the audience to take away from this segment?
If time allows, I take a short walk outside to reset focus. I return, coordinate with sound engineers, test the line, confirm names and titles, and establish rapport with the guest before going live. When I have a full 360° understanding—topic, tone, intent—I can deliver clarity and precision.

TATARINA: During the live broadcast, what strategies do you rely on to maintain clarity and accuracy under intense pressure? Are there specific techniques (e.g., note-taking, mental rehearsal, anticipating content) that you've found particularly effective?

ALALI: My clarity comes from internal alignment—tone, rhythm, and breath. Breath is especially key. It helps me regulate pressure, maintain vocal control, and reset when the content becomes overwhelming. Even in tense situations, one controlled breath can restore command of the message. I also:
• Match the speaker's tone and structure.
• Articulate pronouns and syntax more cleanly than the original, especially when the guest's delivery is messy.
• Take notes only for numbers (since numerical order reverses in Arabic).
• Do mental rehearsal only for names or pronunciation.

If I know the guest, I anticipate their talking points based on past commentary or social media. But the most powerful tool under pressure is still the breath—it's where clarity begins.
TATARINA: Have you integrated any AI or digital tools (such as glossary apps, speech recognition systems, etc.) into your live interpreting workflow? If so, how have they impacted your decision-making and overall workflow?

ALALI: I don't use glossary apps in broadcast settings—they're unnecessary for this type of content. I also don't use speech recognition tools, although I would, if policies allowed them. Most media organisations restrict external software. Occasionally, I might consult an online dictionary mid-segment, but only in rare cases.

TATARINA: Do you think the availability of AI tools has influenced your sense of autonomy or professional judgment during live events? Can you describe any positive or negative effects you've experienced?

ALALI: AI hasn't affected my autonomy or professional judgment. I've always approached it as a tool—useful when it serves a purpose, irrelevant when it doesn't. I've occasionally used AI-generated options for phrasing in written contexts, but not during live events. I avoid making claims about tools I haven't used in depth. I'd rather be accurate than speculative.

TATARINA: Looking ahead, do you see a role for AI in supporting human interpreters during live broadcasts? In which areas (if any) do you think AI could provide useful support without undermining the human element?

ALALI: I do believe AI will eventually replace human interpreters. It might happen tomorrow; it might take another decade. But the trajectory is clear. That said, newsrooms today cannot risk the reputational damage of AI errors in live translation. Still, AI can support human interpreters in targeted ways—particularly with speech-to-text. AI often captures poor audio better than the human ear, and if captioning reaches near-perfection, it could become an indispensable aid. But errors still happen. I've monitored live AI captions during interpretation, and while they're improving, they can still misrepresent meaning in subtle, high-stakes ways.

TATARINA: Considering ongoing developments in technology, what improvements or changes in interpreter training programs do you think are necessary to prepare interpreters for a future that might increasingly integrate AI tools? How can human expertise remain at the forefront in such collaborations?

ALALI: Interpreter training programs must prepare students to collaborate with AI without surrendering critical thinking. When speech-to-text becomes flawless, translation will follow. But nuance, ambiguity, irony—these remain human territory. AI performs best with literal language and structured content. It falters where tone shifts or cultural layers emerge. Human expertise must evolve toward strategic communication, not just verbal relay. Interpreters will need to think like editors, not typists. AI can't yet detect subtext. That's our edge. And while AI can draft a strategy, it cannot yet understand one.

Post interview: The hidden challenge – institutional ignorance

ALALI: The greatest challenge I've faced in broadcast interpreting isn't the pace or content—it's the lack of understanding from within the system. Producers know interpreting is a skill, but most don't understand what the job entails. The international standard—30 minutes maximum per interpreter—is based on cognitive research. And yet, I've had to repeatedly

explain this in broadcast settings, only to be ignored because “it’s breaking news.” But the newsroom is always in crisis mode. If you need interpretation, you need backup. Or you need strategy: rotate segments, alternate with commentary, or preselect chunks. There are many solutions—but little willingness to apply them. In one case, a colleague interpreted solo for 90 minutes. When he finally stopped, they told him they’d simply forgotten. No one forgets what’s live on air. They just didn’t prioritise him. Some producers expect interpreters to sprint across buildings mid-crisis, forgetting that breath control is part of speech control. If you run, you lose your breath. If you lose your breath, you lose clarity. It’s not drama—it’s physiology. I’ve learned to say no. Some don’t like it. But my nervous system is not up for negotiation. If a newsroom needs more coverage, they can increase the budget or adjust the format. Interpreting is a human act. And if you want precision under pressure, the least you can do is understand the cost of it.