JUST SAY IT

International Workshop on Interpreting Technologies

PROCEEDINGS

of the International Workshop

on Interpreting Technologies

SAY-IT 2023

Edited by Gloria Corpas Pastor and Carlos Manuel Hidalgo-Ternero

5 - 7 June | Malaga, Spain

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Preface

The present volume comprises accepted contributions at *Just say IT: International Workshop on Interpreting Technologies* (SAY-IT 2023), which took place at the University of Malaga (Spain), on the 5th, 6th, and 7th of June 2023.

While language technologies have already made a major impact on the core tasks in the translation profession, the field of interpreting has not yet witnessed a fundamental paradigm shift on account of their use. Against such a background, SAY-IT 2023 aimed at filling in this gap by allowing the discussion, the scientific comparison, and the mutual enrichment of researchers and professionals working with interpreting-related technologies. In this regard, SAY-IT addressed the development of interpreting-related tools, and the experience interpreters have with these tools as well as the development of machine interpreting engines, incorporating (or not) human expertise. The workshop also offered a discussion forum and publishing opportunity for interpreters and for researchers and developers working on interpreting-related technology and machine interpreting. It also played a key role in fostering networking between all stakeholders.

The main fruits of such a productive workshop are collected in the present volume. SAY-IT 2023 sought to act as a meeting point for researchers working in interpreting-related technologies (CAI tools, machine interpreting, speech to text/speech translation, remote interpreting, etc.); practicing tech-savvy interpreters; companies and freelancers providing services in interpreting as well as companies developing tools for interpreters. In addition to the short papers for presentation included in this volume, SAY-IT also invited talks by leading lights in the field, as well as hands-on seminars hosted by practitioners. Over 80 attendees from all around the world were present at SAY-IT 2023 workshop, which welcomed contributions authored by a total of 17 scholars. These figures account for the truly international nature of the event.

Most contributions revolved around the notion of technologies for interpreting trainees (papers by Encarnación Postigo Pinazo & Presentación Aguilera Crespillo; María Teresa Ortego Antón; Ingrid Cáceres-Würsig & Darío Mantrana Gallego; Silvia Damianova Radeva, Carmen Valero Garcés & Elena Alcalde Peñalver; and Concepción Mira Rueda); technologies in the current professional practice (papers by Laura Noriega-Santiáñez; and Michela Bertozzi & Francesco Cecchi); and technologies for remote delivery of interpretations (the papers by Olga Koreneva Antonova & Hanan Saleh Husein, as well as by Keming Peng, Aiping Mo & Menglian Liu).

Regarding the keynote speeches, three were the main axes of discussion. First, Bart Defrancq (Ghent University) paid attention to the dualism of the interpreting industry (with well-paid, well-educated and unionised conference interpreters vs.

isolated, poorly-remunerated and insufficiently-educated public service interpreters) and how emerging technologies are already widening the gap between these two groups. Secondly, both the present and the future of speech-to-text interpreting (STTI) and its contributions to accessibility were extensively covered by Daniela Eichmeyer-Hell (University of Vienna), who focused on STTI as a profession; Pablo Romero Fresco (Universidade de Vigo), who delved into STTI and live subtitling, and Marcin Feder (European Parliament), whose presentation revolved around live captioning, namely a speech-to-text and machine translation tool for 24 languages at the European Parliament. In this line, a closely related technology, automated speech translation, was presented in depth by Jan Niehues (Karlsruhe Institute of Technology), who chiefly concentrated on the challenges, approaches, and research directions of this emerging field. Finally, new-generation remote interpreting platforms were presented by Susana Rodríguez (Co-founder & CEO at KUNVENO), more specifically the SmarTerp-CAI, an AI-powered Computer-Assisted Interpreting tool designed to assist simultaneous interpreters; and by Fardad Zabeitan (Co-founder & CEO at KUDO), who displayed KUDO AI latest development in speech-to-speech translation technology. In addition, two seminars were delivered on VIP, a voice-text integrated system for interpreters, designed by the research group Lexytrad. They were organised in practical sessions, in which participants had the chance to discover all the possibilities the VIP system can offer for both interpreting trainees and professionals.

Gloria Corpas Pastor
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How do technologies enhance the executive functions of interpreting students?

Encarnación Postigo Pinazo[0000-0001-6176-6059] and Presentación Aguilera Crespillo[2][0000-0002-3941-4652]

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Abstract. Interpreters' training faces numerous challenges due to the changes in society, globalization, and different communication needs. In contrast to previous programs in which all students of the bachelor's degree in Translation and Interpreting had to take all the interpreting modalities, nowadays academic degrees' syllabus usually places simultaneous interpreting only as a compulsory subject in the interpreting pathway within this bachelor's degree. Training in liaison and consecutive interpreting for all students is regarded as compulsory in most universities in Spain. However, subjects' syllabus needs to be effectively updated with technological tools to be implemented from the beginning of the interpreting training period regardless of the type or modality of interpretation. Our study focuses on the need to use technologies to support executive skills which are weak in the first stages of training such as working memory and flexible thinking for multiple tasks and self-control. We distributed a questionnaire to our interpreting students who had taken a previous subject in dialogue interpreting and found out whether they had used technology or not and the weaknesses they still had in their executive functions. We also distributed an interpreting test and students filled in a self-assessment form with their opinions. After the first sampling, a technology seminar was administered using VIP tool. Subsequently, once the knowledge had been acquired, another interpreting session was carried out. The results of the second self-assessment survey show that the students have considerably improved their competence and their executive skills were slightly enhanced.

Key words: technologies, VIP tool, interpreting training.

1   Introduction

Interpreting training specially in the early stages involves the enhancement of essential executive function in novice trainee. Recent studies review the importance of these functions (Nour 2020), (Hu, 2021). Technologies for interpreting play an important role in these processes and their use must be implemented from the very beginning of the training process (Ruiz Mezcua, 2018) although this use of technologies could be not explicitly outlined in some academic syllabus. However, there is an urgent need to make use of it to prepare the future interpreter for the current professional market (Kerremans et al, 2019), (Corpas Pastor, 2022), (Fantinuoli, C. and Prandi, 2018).

The present study focused on the performance of trainees in early stages. By means of self-evaluation documents our group of students give feedback on their performance both for the linguistic and content aspect as well as for their abilities in multitask activities and vital executive functions such as remembering or writing down data needed for short term memory and controlling emotions during the interpreting process. Half of the group of 19 students in their third year the degree was not familiar with interpreting technologies as it was found out in a preliminary questionnaire. However, the ones who have not used technologies have a positive attitude toward receiving training for the use of them.
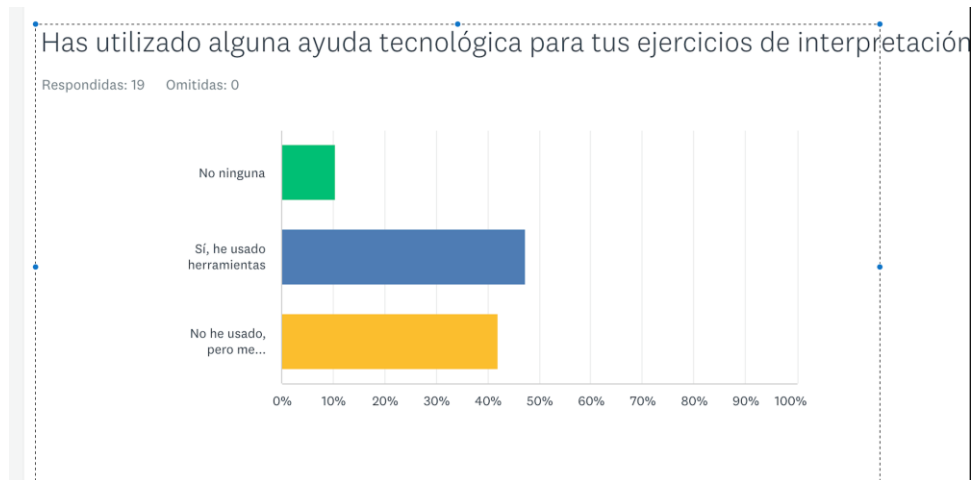
Figure 2: Survey for students concerning the use of interpreting technologies.

2. Experiment

At the beginning of the training of the module of consecutive interpreting which is mandatory in the program academic syllabus students were asked to self-assess their performance after interpreting a discourse on specialized medical issues, specifically about childbirth (European Commission, Speech Repository, level: intermediate, use: consecutive, domain: health, gender, social issues)[1]. At this stage, no instruction on CAI tools (Fantinuoli, Prandi 2018) was still given to the group. They prepared their assignment with no aid of technology. Regarding the questions on executive performance, those were the results:

The survey shows that 95% of the students are getting used to note taking with difficulty. Only 5% stated that perform their note taking tasks without difficulty.

8. ¿Los datos que tiene que recordar con la memoria a corto plazo (números, nombres propios etc.) suponen una dificultad?

21 respuestas

- 🔵 Me estoy acostumbrando a la toma de notas pero aún me cuesta.
- 🔴 Tomo notas sin dificultad.

95.2%

Figure 2: Answers to the question "Do you find difficult to remember data for short term memory (numbers, proper names, etc.?

Regarding the performance of multiple tasks such as speaking and reading notes, 14% of the students stated it was not difficult at all for them while 23% admitted it was very hard for them to do it. The rest, 61% stated they were improving their skills with practice.

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[1] https://webgate.ec.europa.eu/sr/group/31904 [Accessed May 8th, 2023]

9¿Puede alternar tareas de forma flexible como escuchar a la vez que tomar notas o leer las notas mientras interpreta?

21 respuestas

- Me resulta muy difícil.
- No supone mucho esfuerzo.
- Creo que voy mejorando con la práctica.

61.9%

23.8%

14.3%
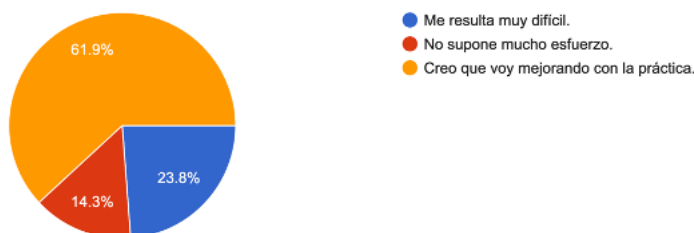
Figure 3: Answers to the question "could you easily perform multiple tasks such as listening and take notes or reading your notes at the same time you interpret?"

Concerning the control of emotions during the interpreting process, only 38% of the students state that they find it easy to manage emotions whereas 38% think it is a serious problem that they cannot handle so far. The remaining 38.1% state that they find it difficult as well in certain occasions.

10. ¿Controla bien las emociones durante el proceso de la interpretación?

21 respuestas

- Es un problema importante, no puedo controlar el nerviosismo, a veces la mente se queda en blanco y me cuesta seguir.
- Me ocurre solo a veces que no controlo bien las emociones.
- No tengo problemas.

23.8%

38.1%

38.1%

Figure 4: Answers to the question "can you manage to control emotions during the interpreting process?".

At this stage of the second part of this training module, we introduced a methodology, based in new technologies, that supports consecutive interpreters in the tailor-made preparation of resource materials, that can be applied in university interpreting teaching programmes, in the modality of consecutive interpreting.

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To this end, we proposed VIP, a novel voice-text integrated system for interpreters. In this part of the experiment, we also asked our students to self-assess their performance after interpreting a discourse on specialized medical issues (European Commission, Speech Repository, level: intermediate, use: consecutive, domain: health)[2], but this time upon instruction on CAI tools.

First, students became familiar with the corpus compilation and management tool, which allowed them, later, to search for the most common terms and created glossaries from the compiled corpora. To achieve our teaching objective, students were explained for their further practical application, the creation of a corpus through the corresponding functionality in VIP.

There are different types of corpora depending on the classification criterion adopted (cf. Corpas Pastor, 2001: 157-159): a) depending on the distribution of texts in the corpus, these can be: large or extensive, balanced, pyramidal, monitor, parallel, comparable; b) according to the specificity of the documents containing: general, specialized, generic, canonical, periodic or chronological, diachronic; c) according to the proportion of the text included in the documents that compose it: corpus text, reference, lexicon; d) according to the codification and annotation of the corpus: annotated and not annotated; e) according to the documentation that accompanies the texts: documented, undocumented.

According to the above typology, for this simulation created comparable corpora in English and Spanish, according to the steps and phases indicated by the trainer. Students first were explained to create corpora on a manual compilation, and secondly, on an automatic compilation.

Once adequate corpora were available, the second phase of this training consisted of the semi-automatic extraction of simple and multiword terms. For this purpose, the functionality of extraction of frequent words was used, restricting searches to nouns, as well as the functionality of search by patterns, following the methodology of Corpas Pastor (2022).

Accordingly, students were led to use different pattern search, and with a simple click, the student could not only extract candidates for multiword terms, but also select them for the glossary that finally they prepared as the final part of their training.
Through these activities, the student not only learned to extract the terminology and phraseology relevant to this assignment, but also became familiar with the use of comparable corpora as a method to discover translation equivalents.

After the training, similar questions on their performance related to execute functions were asked in a second survey:

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[2] https://webgate.ec.europa.eu/sr/speech/ladies-beware [Accessed May 8th, 2023]

Does the use of technology help you feel more confident in remembering or writing down data needed for short-term memory?

How well do you control your emotions during the interpreting process with the help of interpreting technologies?

Do you find that the use of technologies makes it easier to alternate tasks such as listening and note-taking while interpreting? Interpreting training with instruction on CAI tools

The students answered the second survey which showed some outstanding results. They were asked how many mistakes they made on their second discourse interpreting, with 52.6% having made over five mistakes, 42.1 % made from 1 to 3 mistakes and only a short percentage made over 10 mistakes.
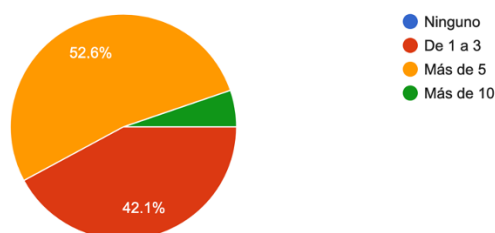
Figure 5: Answers to the question "How many mistakes have you made in total?

Upon considering their self-assessment, students were asked if the use of technologies make easier to alternate tasks such as listening at the same time as note-taking while interpreting, and 94.7% of the students answered "yes".

¿Considera que el uso de tecnologías hace que sea más fácil alternar tareas como escuchar a la vez que tomar notas mientras interpreta?

19 respuestas
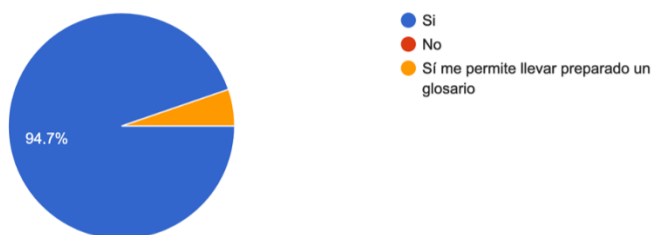
Figure 6: Answers to the question "Do you consider that the use of technologies make easier to alternate tasks such as listening at the same time as note-taking while interpreting?

Another relevant result of the survey is that students seemed to control better emotions during the interpreting process with the support of interpreting technologies, with 89.5% of the students stating that interpreting technologies help to prepare reliable glossaries and making agile terminology searching, a reason for making fewer errors during their interpreting.

¿Controla bien las emociones durante el proceso de la interpretación con la ayuda de las tecnologías para la interpretación?

19 respuestas

Figure 7: Answers to the question "Do you control emotions during the interpreting process with the help of interpreting technologies?

3. Conclusions

The use of new technologies in interpreting is a new challenge like it was years ago for translation and a great contribution for the students. In this experiment, we have analyzed the linguistic and emotional difficulties faced by students of consecutive in-

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terpreting in preparing themselves for a speech interpretation task, and we have highlighted the relevance of CAI tools in the training of futures interpreters. Students' performance improved after receiving training if we compared that they accomplished two similar tasks in length and difficulty both on specialized health matters. The first without training in interpreting Technologies and the second one after receiving a seminar on VIP tool.

This work has allowed us to show the possibilities offered by the VIP system for the preparation of terminology prior to the assignment of interpretation and the benefits that its use entails compared to other traditional documentation techniques (on paper, parallel texts, hand-created glossaries, etc.). In this sense, students have been guided in a teaching-learning process that simulates the professional reality that they will soon face, so that they became familiar with the creation of comparable corpora and can apply them in interpretation at the same time they are made to reflect on the challenges that this entails. The results and comparison of both surveys show that on the second survey upon using CAI tools, the students have considerably improved their competence and their executive skills were slightly enhanced.

In addition, they have been shown the usefulness of working with tools such as VIP, which not only allows to compile corpora and manage them, but also to create automated glossaries from the corpora that they themselves can compile, with updated material, and we propose the inclusion of interpreting technologies in the teaching of interpreting degree syllabus.

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ANNEXES
SURVEYS ANSWERED BY STUDENTS
https://docs.google.com/forms/d/e/1FAIpQLSfW6rZLiH8_mepqM63mn0bnK-BnebpQ5BPHV_EHrYpNBecRGhA/viewform
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Testing Interprefy in the simultaneous interpreting classroom: Lights and shadows

Abstract. Although interpreters have not traditionally benefited from technological advances compared to translators (Costa *et al.*, 2018), recent advances in interpreting technologies are increasingly attracting researchers and practitioners. Besides, the demands of simultaneous remote interpreting were drastically accelerated by the global COVID-19 pandemic, with the launch of new interpreting systems, platforms, and software for professionals to carry out interlinguistic mediation. However, bureaucracy and slowness characterize the change of simultaneous interpreting curriculum at universities, so interpreters' training has not adapted to market needs. To fill this gap, a two-hour training session about remote simultaneous interpreting with Interprefy (a simultaneous remote interpreting system) was designed in the framework of the optional course Prácticas de Interpretación Simultánea B/A Inglés (Degree of Translation and Interpreting at the University of Valladolid, Spain). Previous to the session, simultaneous interpreting trainees had the opportunity to follow an online course about Interprefy provided by the company. Next, they tested their knowledge with a hands-on workshop in which simultaneous interpreting situations were simulated. Trainees completed a questionnaire after the training session in which they presented their insights about remote simultaneous interpreting with Interprefy. Findings are discussed in this paper and conclusions are drawn.

Keywords: remote simultaneous interpreting, Interprefy, English, Spanish, students' perceptions.

1   Remote Simultaneous Interpreting Systems

Nowadays, there is a growing interest in language technologies and digital resources in the field of interpreting, even though some studies suggest that interpreters are still largely unaware of them or even reluctant to use them (Corpas Pastor & Fern, 2016). The shift into the digital era was drastically accelerated by the global COVID-19 pandemic. In fact, three main areas have a central role in this technological turn: computer-assisted (CAI), remote (RI) and machine interpreting (MT). In this paper, we focus on RI.

RI is a broad concept which is commonly used to refer to forms of interpreter-mediated communication delivered by means of information and communication technology. It is not a monolithic notion, but it can rather be used to designate different settings and modalities, for example when all event participants are gathered at one place while the interpreters are located at a different venue, or when the interpreter and one of the interlocutors are both

present at the same place. As far as technology is concerned, RI can be carried out by means of different solutions, from simple telephone to advanced video-conference equipment (Fantinuoli, 2018: 4).

Traditionally, RI has been used mainly to provide remote consecutive interpreting services, for example, in the healthcare or judicial sector. After the COVID-19 breakout, the demands of remote simultaneous interpreting (RSI) increased exponentially, from 3% of the prepandemic interpreting market to 16% of the postpandemic market (Nimdzi, 2023).

Aware that RSI is here to stay, ISO (2022) updated the normative about simultaneous interpreting equipment and included requirements and recommendations for simultaneous interpreting delivery platforms, defining the "virtual environment used in simultaneous interpreting for managing the processing of signals during the transmission of information from speakers or signers to distant interpreters and the interpreters' rendition to a distant audience". ISO (2022) also noted equipment necessary in simultaneous interpreting, such as interpreter interfaces, microphones and cameras attached to the simultaneous interpreting delivery platform.

These platforms have been traditionally known as RSI systems or RSI software, and they usually involve two main components: the interpreting-management system designed to schedule and manage interpreting assignments and the interpreting delivery platform designed to support the delivery of spoken-word language services (Corpas Pastor, 2018: 154-155). In fact, these RSI systems have become a real niche within the language service industry. New RSI providers have consistently entered the market since March 2020. According to Nimdzi (2022: 30), they included 20 technologies in 2020, and in 2021, the number of solutions increased to 34. Even traditional language service providers (LSP) in the interpreting sector are thinking about building their own RSI platforms to meet their clients' changing needs.

This evidence cannot be overlooked by interpreting trainers, so they should adapt their courses to the demands of the market, as "interpreting is rapidly heading towards digitalization and technologization. In this new context, interpreters should be equipped with appropriate tools and resources before they find themselves stuck in the technology whirlpool" (Corpas Pastor & Gaber, 2020).

Aware of the existing gap between the needs of the market and the simultaneous interpreting curriculum at universities, we designed a two-hour training session in which an RSI platform was selected. Having completed the training sessions, students filled out a questionnaire. In this paper the training initiative is detailed and the results about students' perceptions are shown.

2   Methodology

The first step was to select an RSI system. It was not an easy task because of the huge number of offerings available on the market. Based on the comparison of five RSI systems (Ortego Antón and Fernández Mingo, 2022: 99-100), we asked the companies whether they had academic programs or offered free licenses for academic purposes. Two companies answered, and Interprefy offered the conditions that best suited the

needs of the Faculty of Translation and Interpreting at the University of Valladolid (Spain), providing a training course for trainers and free academic licenses for students.

Next, the two-hour training session was designed in the framework of the optional course entitled Prácticas de Interpretación Simultánea B/A Inglés (2nd semester of the 4th year) in the academic year 2022/2023. The previous week, students read a paper about RI systems (Fernández Mingo and Ortego Antón, 2022) and then took the online course provided by the company about the main features of Interprefy. Interprefy offers a cloud-based simultaneous interpreting technology that can be integrated in the conference. The online course dealt with the main features of the interface, which is shown in Figure 1.
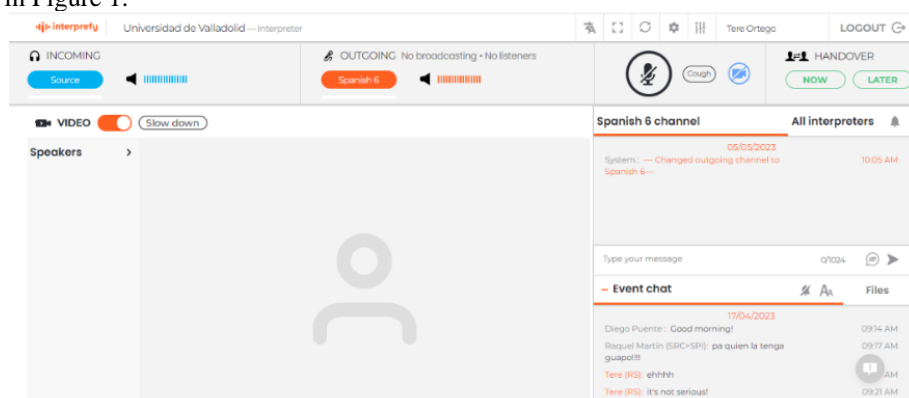
Fig. 1. Screen capture of Interprefy's interface.

In the top menu, the source (incoming) and the target (outgoing) languages can be selected. On the right side, the button to turn the microphone on or off is displayed; red means that it is on and grey means that it is muted. In addition, there is a button to momentarily mute the retransmission if any noise (e.g., a cough) interferes with the session. There is also an exclusive chat for interpreters and moderators and below, the event chat for all participants. The handover function is also present in the upper right corner, and interpreters can choose between now or later and choose the time. When clicking it, a pop-up window appears, and both active and passive interpreters must click on the accept button for the transfer to take place. Attendees simply select their preferred language and listen to best-in-class interpretation with near-zero latency through their headphones. The Interprefy team supports event and meeting organizers before, during and after events, offering a range of professional services, from training to remote support and usage reporting. In addition, Interprefy allows simultaneous listening to both the speaker and the interpreter, as well as adjusting the volume of each channel. This last option is very useful for the passive interpreter, who can listen to how the partner is interpreting while following the original speech in case any linguistic problems can be detected. Live captions and AI-translated subtitles can be also displayed. The technical service provides a same-day response, and it usually does not exceed an hour's wait time. Additionally, Interprefy has developed an app that allows users to hear the language of their choice from their smartphone. The app enables access

to the system by users and interpreters, who can work remotely. It can be also integrated with over 60 meeting and event platforms, such as Zoom, Microsoft Teams and Webex.

Once students successfully completed the online course, the two-hour training session was held. Students were divided into groups of three and a booth was assigned to each of the groups, so students had the opportunity to interchange roles: active interpreter, passive interpreter and attendee. Interpreters had to interpret two speeches about gender equality on video, which were given at the United Nations by Emma Watson and Angelina Jolie. Students changed roles after the end of the first speech. Once the on-site training session was completed, a questionnaire designed with Microsoft Forms was distributed among students through the course's Virtual Campus to get their perceptions and feedback about the session. The questionnaire was composed of four sections: the first section concerns personal data and includes training about RSI, the second section deals with the reported technical issues, the third section concerns the interpreting process occurring through software instead of an on-site booth, and the fourth section addresses their considerations after completing the training session. The data obtained from the questionnaire include numerical or quantitative data, as well as verbal or qualitative data in the form of the respondents' comments.

3 Analysis and Results

3.1 Personal data and training a bout RSI

22 students were enrolled in the course, but only 18 (three men and 15 women) of them participated in the training session. Their ages were between 21 and 28. They had not received any training about RSI.

After completing the online course provided by Interprefy, students rated the intuitiveness of the course 4.5/5, and the appropriateness of the one-hour duration was scored 4.2/5. All in all, the course was rated 4.6/5.

3.2 Technical issues

Regarding the technical requisites to use Interprefy software, only four of the participants (22%) knew the requirements, although they were detailed in the online course. Two students (11%) had technical issues related to the performance of the microphone, which did not work properly at the beginning of the session. At this point, it must be said that Interprefy did not recommend using earphones or microphones connected by Bluetooth nor the microphone integrated in the laptop. However, some of the students decided to use Bluetooth devices and/or the microphone integrated in the laptop, so they experienced technical issues that affected the quality of the interpreting.

3.3 The interpreting process

Concerning the access to the platform, none of the students had problems connecting to the Interprefy platform through the web links provided by the company for academic

purposes. In fact, the interface was rated 4.16/5, and the user-friendliness was rated 4.05/5. The handover option during the interpreting received different scores, as shown in Figure 2; at least 50% of the students found it acceptable and scored it 4 or 5.
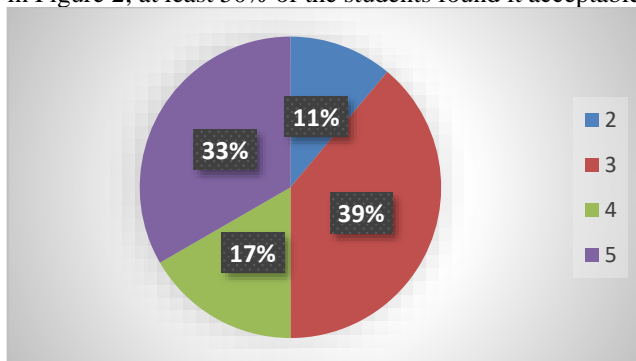
Fig. 2. Students' satisfaction with the handover option.

Only five of them activated the option of live captions using Automatic Speech Recognition (ASR), and they rated the shift between interpreters 2.6/5, indicating that Interprefy should improve this feature.

Among the difficulties, seven students (37%) considered that the use of RSI software reduced the quality of their performance, and four of them (22%) had to ask for technical help provided by the trainer. Another factor that distracted trainees was related to the interpreters' chat and the events chat, with six of them (33%) affirming that reading the chats while interpreting prompted a lack of concentration that affected their performance.

3.4 Considerations after the RSI training session

More than half of the trainees (55%) reported more concentration problems during their performance when using an RSI system than when they interpret in an on-site booth. They were given the option to express their preference for interpreting in an on-site booth or using an RSI system, and all except one selected the on-site booth.

Regarding the performance and the typical obstacles associated with simultaneous interpreting, 12 students (67%) declared that they made more omissions when using Interprefy than when they are in an on-site booth. Concerning mistranslations, 10 students (55%) believed that the use of RSI induced them to make more mistakes during their performance. Among the main difficulties, they pointed out insufficient quality of the audio and trainees' microphones, the Wi-Fi connection producing disruptions despite the fact that wireless connection was not recommended, the lack of mastery of the software or the need to pay attention to the performance and the interface, among others. Nevertheless, 10 of them (55%) reported that interpreting using an RSI software did not make them feel more tired.

Concerning the collaboration between the active interpreter and the passive interpreter through the handover option, all participants provided a minimum score of 3/5,

with a mean of 3.8. Another question was related to their intent to purchase Interprefy if they were professional interpreters, and 11 of them (61%) answered "yes". In addition, they were asked about the degree to which they would recommend Interprefy to a colleague, scoring 3.9/5. Sixteen of the students believed that they should have received more training about RSI. Finally, they gave an overall score of 7.9/10, as shown in Figure 3.
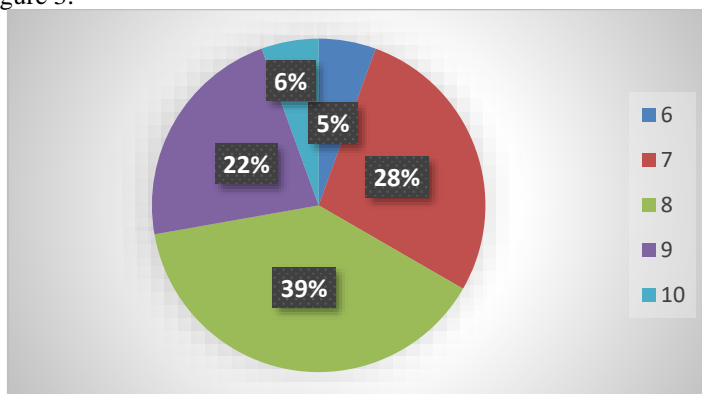
Fig. 3. Score of the training assessment.

These results support the line of previous studies conducted on RSI (Vigier-Moreno & Lázaro Gutiérrez, 2019; Prandi, 2023, among others), which have highlighted the quality of audio/video signals, the partial loss of contextual information due to remoteness and psychological factors such as fatigue, higher levels of stress and loss of motivation and concentration, among other issues that remote simultaneous interpreters must deal with.

4   Conclusions

Technological progress is removing technical barriers, and RSI has become a viable solution for many stakeholders needing to cut costs and increase service availability. Although the mechanisms to change the curriculum of interpreting courses in the Spanish higher-education system are characterized by bureaucracy and slowness, efforts must be made to bridge the gap.

In addition, interpreting trainers should receive training about RSI, MI and other technologies, because many of them are not specialists nor familiar with new advances in this field. In addition, universities should provide trainers software and licenses related to translation and interpreting technology tools. Provided that adapting the curriculum takes time, they can include these tools in daily activities in the classroom, for example, alternating the use of on-site booths with RSI systems.

To sum up, we consider that the inclusion of RSI software in interpreter training will have many significant potential benefits, such as making the expertise of high-level professionals accessible to students around the world without temporal and geographical restrictions, supporting students' self-study, enhancing students' learning

experience by making classrooms more interactive and training more realistic and relevant and allowing the creation of inter-institutional synergies.

5 Acknowledgements

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Preparation of the interpreter in the new era: a survey study of professionals and trainees

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Abstract. This paper aims to investigate the preparation phase of interpreters, by comparing the resources and tools utilized, as well as the challenges faced. For this purpose, professional interpreters from different countries and students of the Degree in Translation and Interpreting at the University of Malaga were surveyed.

Keywords: Preparation. Interpreting technologies. Professional interpreters. Trainee interpreters. Questionnaires.

1 Introduction

The development of new technologies in interpreting has brought about significant changes in professional realities, including the interpreting environment and interpreting methods, such as the widespread adoption of remote interpreting[1] in both public and private sectors. This reality has led to lower costs, "democratization" of access, job opportunities, and better solutions, ultimately consolidating the practice of interpreting within the labor market (Gaber and Corpas Pastor, 2020). This is what Fantinuoli (2018b: 3) calls the "technological turn in interpreting", given the paradigm shift in the ecosystem where interpreting takes place and its socio-economic implications. In this context, interpreting has been affected in three different ways: in the preparation prior to interpreting, in the interpreting itself and in how the interpreting assignment is delivered (Spinolo and Amato, 2020).

This paper investigates the preparation, which is crucial for achieving high-quality interpreting (Gile, 2009). However, interpreters are often overwhelmed by the limited time available for preparation and the organizational and management challenges (Gaber and Corpas, 2020). In addition, interpreters often deal with limited access to preparatory documents (Fantinuoli, 2018b), i.e., presentations, pamphlets, among others, which sometimes require significant time and effort to obtain. Hence the need for the interpreter to be equipped with a series of tools that aid "during all phases of the interpretation process (both onsite and remote), including self-assessment and training" (Corpas Pastor, 2021: 94). To meet the demands of the evolving digital landscape in interpreting, it is imperative to integrate these technologies into the train-

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[1] Remote interpreting (RI) is categorised as videoconference interpreting, telephone interpreting, or web-conferencing (Braun, 2015; Gaber and Corpas, 2021).

ing of new generations of interpreters, thereby enabling them to acquire the necessary skills to navigate these environments (Annalisa, 2016).

Therefore, this study examines the differences in the preparation phase between trainee interpreters and professional interpreters. The first section of our study discusses the evolution of technology and some computer-assisted interpreting (CAI) tools. This section justifies our chosen methodology, which involves conducting surveys among 3rd and 4th year interpreting students from the Degree in Translation and Interpreting at the University of Malaga, Spain, as well as professional interpreters from different countries. In the subsequent sections, we evaluate the collected data, focusing on the professional background and the tools and resources used purely in the preparation phase. These findings lead us to the conclusions of the study, wherein we discuss the implications of technological advances and observed practices.

2   Preparation in the digital era

In recent years, there has been a huge interest in the development of new technologies, which have emerged from the field of Language Technologies, specifically Speech Technologies, as well as other disciplines such as Natural Language Processing, which promote the transition to digital consolidation (Gallardo and Montero, 2019). The interweaving of these disciplines has enabled the creation of new tools and resources that aim to assist language professionals, including interpreters (Corpas Pastor *et al*., 2021). The developing of these resources seeks to improve "the productivity and ease the labour-intensive activities of an interpreter", as progress in this field is still very slow and these tools are insufficient to take on all the challenges involved in interpreting, and many are not entirely sophisticated and robust (Costa *et al.*, 2014: 29; Corpas Pastor, 2018; Corpas Pastor, 2021). Despite fewer technological tools for interpreters compared to translators, recent years have seen increased research on interpreter-assisting technologies (cf. Costa *et al*., 2014; Fantinuoli, 2016; Corpas Pastor, 2021).

In this context, we refer to CAI tools, which help interpreters "in the creation of glossaries by means of integrating a wide range of terminology resources, in looking up terms or entities in an ergonomic way, and in extracting useful information from preparatory documents, to name but a few" (Fantinuoli, 2018b: 4), as well as alleviating their cognitive load (Wan and Yuan, 202 2). CAI tools allow interpreters to have at their disposal applications ranging from terminology management, note-taking, voice recording, interpreting training, or unit converters (Costa *et al*., 2014; Corpas Pastor, 2018). Other authors such as Ortiz and Cavallo (2018) add to this list corpora building tools, terminology extraction tools, speech recognition tools, among others. However, there are other tools and resources that have not been created specifically for interpreting, but which are part of the preparation phase, for instance, the internet or several writing software applications (Wang and Wang, 2019).

As the scope of this study is limited to tools and resources specifically related to the preparation phase of interpreting, we will now examine some noteworthy ones. Fantinuoli (2018b) highlighted first the influence of the web on the sector, enabling

online searches and facilitating the creation of new technologies due to the digitization of documents and the vast amount of information available. As for terminology management tools, we highlight some such as Glossary Assistant, Interplex UE or Interpreters'Help, which improve the interpreter's efficiency by storing, classifying, and retrieving specialised terminology (Ortego Antón, 2017; Corpas Pastor, 2021). Furthermore, corpora have gradually been incorporated in the interpreter's workflow, especially in the preliminary phase of interpreting (*cf.* Fantinuoli, 2017; 2018a), since they allow a better and more realistic contextualisation of phraseology (Corpas Pastor and Seghiri, 2016; Gaber and Corpas Pastor, 2020). Similarly, there has been an upsurge of machine translation tools in translation, especially neural machine translation, so it can be deduced from some studies (*cf.* Corpas Pastor and Fern, 2016) that interpreters are also gradually adopting these tools for linguistic and translation queries. In addition, there are also several technological platforms that can be accessed online, such as Boostlingo or Interprefy (Gaber and Corpas Pastor, 2020), which greatly improve interpreter productivity by offering a series of practical resources. Similarly, cutting-edge interpreting projects are being developed, such as the VIP system[2], "which integrates a suite of tools to assist interpretation at all phases, plus an open catalogue of interpreting-related technologies (tools and resources)" (Corpas Pastor, 2021: 16). Finally, we should briefly mention the computer-assisted interpreter training tool for professionals and students, such as Black Box, InterpretaWeb or Linkterpreting, in which students have at their disposal exercises prior to interpreting (such as cluster, memory, text, audio, etc.) (Costa *et al.*, 2014).

However, another aim of our study is precisely to examine the adoption of these technologies because, as Corpas Pastor and Fern (2016) point out, there is still a certain reluctance and lack of knowledge about their use in interpreting, as some interpreters still use traditional tools (Costa *et al.*, 2014). This is reflected in our research, as these realities are not only present in the professional academic world, but it is common to use Information and Communication Technologies in interpreter training (Annalisa, 2016). However, some curricula are lacking in preparing interpreters for the new interpreting paradigm (Liu, 2022), and sometimes it is challenging for some trainers to introduce these new technologies into the classroom environment (Jiménez Serrano, 2019; *cf.* Castillo, 2015). However, many authors stress the importance of training interpreters, including professionals and students, in technologies and resources, as well as in tasks such as documentation and information retrieval (Ortego Antón, 2017) with the aim of integrating them into interpreters' curricula (Prandi, 2015).

In the following section, we raise all technological aspects and study the contemporary reality of interpreting in the preparation phase.

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[2] VIP - Voice-text Integrated system for interPreters (ref. no. FFI2016-75831-P).

3   Methodology

Our study follows the methodology used in works such as those of Corpas Pastor and Fern (2016), who interview professional translators to find out the degree of adoption of new technologies. We also consider others such as Prandi (2015), which focuses on the use of CAI tools by students and, finally, some of the hypotheses and findings on technological learning and teaching in interpreting by Xiu Yan *et al.* (2018).

3.1   Questionnaires

To create the questionnaires, we assessed technological needs and evaluated the use of technological tools and resources in interpreting. Accordingly, we set two study groups: professional interpreters (Group 1) and trainee interpreters (Group 2). Hence, two different Google Forms questionnaires were developed for the participants to answer a series of questions. The questions were divided into two sections, as outlined in the table below.

Table 1. Questionnaires.

Questionnaires			
Division	Typology	Group	Questions
Section 1: Demography of professional/ trainee interpreter	Personal information	1	1) Age, 2) Gender, 3) Country where activity takes place, 4) Qualifications
		2	1) Age, 2) Gender, 3) Academic course, 4-5) Interpreting subjects
	Language competence	1 & 2	5)/6) Mother tongue(s), 6)/7) First working language (L1), 7)/8) Level of L1 according to CEFRL, 8)/9) Second working language (L2), 9)/10) Level of L2 according to CEFRL
	Professional experience	1 & 2	10)/11) Years, 11)/12) Mode of interpretation, 12)/13) Type of interpreter
Section 2: Tools and resources for preliminary preparation phase	Preparation for an interpreting assignment	1 & 2	13)/14) Time, 14)/15) Challenges, 15)-16) Technological tools and resources, 17)-18) Courses taken on documentary research
	Views on new technologies in interpreting	1	18) Keep up to date, 19) Fields of interpretation in which there is a technological gap, 20) Free comments
		2	19) Keep up to date, 20) Fields of interpretation in which there is a technological gap, 20) Training in technologies in the Degree, 21) Free comments

The survey addresses questions common to both groups, related to their personal information, language competence, professional experience, preparation for an interpreting assignment, and views on new technologies in interpreting. However, some questions change depending on the group, as in some we want to emphasise the degree of technological training of the professional in comparison with the student, as well as the particularities of their professional background.

We distributed the questionnaire to professionals through translation and interpreting associations such as ASETRAD[3], as well as among professional interpreters and lists of distribution and interpreting groups. The surveys for trainee interpreters were distributed among students of the subjects *Interpretación simultánea "BA-AB" (II) Inglés-Español/Español-Inglés* [fourth-year subject] and *Interpretación consecutiva "BA-AB" (I) Inglés-Español-Español-Inglés* [third-year subject] from the Degree in Translation and Interpreting at the University of Malaga.

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[3]   ASETRAD stands for Asociación Española de Traductores, Correctores e Intérpretes (Spanish Association of Translators, Proofreaders, and Interpreters).

3.2 Demographic data

Some of the responses to section 1 of the questionnaire from both groups allowed us to create a demographic profile of the participants, as shown in the tables below.

Table 2. Demography of professional interpreters.

Demography	Professional interpreters								
Participants	44								
Gender	M			F			NB		
	11			32			1		
Age	24-30 years old	31-40 years old		41-50 years old		51-60 years old		61-70 yers old	
	10	13		11		9		1	
Country	ES	DE	IT	MX	PY	BE	CH	US	AE	UK
	35	1	1	1	1	1	1	1	1	1
Qualifications	Degree in TI	Master in TI	PhD in TI	Degree in ES	Master in ES	PhD in ES	Interp. courses	No university education	Others
	29	26	5	1	1	-	13	1	8
Mother tongue(s)	ES	EN	FR	IT	AR	RU	UK	GL	CA	DE
	34	4	2	3	1	1	1	1	2	1
L1	ES		EN		FR		IT		PT		CA
	10		28		2		1		2		1
Level of L1	C2				C1					
	36				8					
L2	ES		EN		FR		IT		PT	UK	DE
	4		10		16		4		1	1	1
Level of L2	C2			C1			B2			
	16			15			6			
Working experience	1-5 years	6-10 years		11-15 years		16-20 years		21-25 years	26-30 years
	17	9		4		6		8	2

Table 3. Demography of trainee interpreters.

Demography	Trainee interpreters				
Participants	17				
Gender	M		F		
	4		13		
Age	20 years old		21 years old		22 years old
	5		10		2
Academic years	3rd		4th		
	8		9		
Mother tongue(s)	ES		AR		RO
	17		1		1
L1	ES		EN		FR
	1		15		1
Level of L1	C2	C1	B2		B1
	4	9	2		2
L2	IT	DE	EN	AR	FR
	1	5	1	3	7
Level of L2	C2		B2		B1
	1		5		10
Interpreting subjects	5	4	3	2	1
	1	6	1	5	4

Both tables show the number of participants who responded to each category in the questionnaire. All questions were compulsory, except those related to the second working language for both study groups (questions 8-10) and to professional experience for the students (questions 10-13). All responses were anonymous. The study participants exhibit diverse profiles, characterized by a strong linguistic proficiency, varied working languages, and primarily qualifications in translation and interpreting. The demographic profiles of both groups are diverse and represent different sectors of interpretation. These profiles, though on a small scale, will aid in examining the extent of adoption of new technologies both in professionals and students.

4 Evaluation and results

Due to space constraints, in this section we evaluate the results obtained from both study groups, focusing purely on the professional profile and the use of tools and resources in the preparation phase.

4.1 Professional background

Firstly, we have assessed the professional experience only of group 1, as no student in group 2 has worked professionally as an interpreter. The professional interpreters had experience working in the following modes of interpretation: Consecutive interpretation (90.9%), Simultaneous interpretation (84.1%), Liaison interpretation (77.3%), Whispered interpretation or Chuchotage (70.5%), In-person interpretation (72.7%), Remote interpretation (68.2%), or Over-the-phone interpretation (27.3%). These data show the multifaceted profile of the interpreter, who must adapt to different types of interpreting. Moreover, we see that more than half of them have worked with remote interpreting, so that new technologies are beginning to take hold.

In addition, we examined the way they have worked: the vast majority have worked as freelance interpreters (88.6%), followed by staff interpreters (11.4%), and trainee interpreters (11.4%). Finally, only 2.3% have worked as volunteer interpreters, on interpreters on ad hoc basis, and interpreters in a public body. Hence, the most frequent job prospects are those of freelance interpreters. Therefore, it is also noteworthy to highlight these aspects in the future training of interpreters, encompassing both job opportunities and tax considerations.

4.2 Interpreting tools and resources

In this section we analyse the tools and resources used by both groups during the preparation phase.

According to the surveys, 88.2% of students said they were not up to date with the latest technological developments, compared to 11.8% who said they were. Opinions are slightly more balanced for professional interpreters, but clearly the majority (75%) say they are not up to date, compared to 25% who are. This is exemplified in a question inquiring if the participants have undergone any specialized training in documentation for interpreters. The results show that 84.1% of professionals have not taken any further documentation research courses, while only 15.9% have. Conversely, only 5.9% of the students had specialized training in this area.

In addition, all fourth-year students employed technological tools and resources in their preparation phase. Conversely, 77.8% of the third-year students reported utilizing them, while only 22.2% did not. Among professionals, 95.5% claimed to incorporate technology in this phase, with only 4.5% not using any of them. The table below shows the percentage of tools and resources used by both groups.

Table 4. Tools and resources in the preparation phase.

Tools and resources	Group 1: Professional interpreters	Group 2: Trainee interpreters
Paper dictionaries or encyclopedias	28.6%	5.9%
Online dictionaries or encyclopedias	83.3%	70.6%
Bilingual glossaries	83.3%	76.5%
Parallel texts	78.6%	52.9%
Machine translation systems	57.1%	35.3%
Computer assisted interpreting tools	9.5%	17.7%
Web-based resources	61.9%	17.7%
Databases	33.3%	29.4%
Term banks	38.1%	5.9%
Audio input	38.1%	23.5%
Corpora	11.9%	-
Others	9.6%	14.3%

Professional interpreters have added in the "Others" category the "VIP system" and some websites such as "ChatGPT" or online "newspapers", as well as "spoken speeches". A fourth-year student has also suggested the "VIP system". Therefore, according to these data, we see a clear tendency for paper resources to be used less and less by the new generations, who are likely more accustomed to the use of technology in the digital era. Moreover, it seems that students who receive more interpreting training are more likely to employ a diverse set of tools and resources during the preparation phase, as fourth-year students used more CAI tools. A notable observation is that the integration of technology is increasingly prevalent, even though (professional and trainee) interpreters do not believe they are familiar with all available tools. Finally, only 11.8% of students rate the training in technologies for documentation as "good", while 52.9% consider it "average", 23.5% "poor", and 11.8% "very poor".

5 Conclusions and future work

In this study, we analysed the impact of new technologies and the emergence of new professional profiles. Hence, the data gathered from both study groups bolster the notion that there is a trend towards working in remote interpreting and adopting technological tools and resources. Interpreters have successfully integrated these technologies into their workflow, however, there are still challenges that could be addressed through the further development of these tools. This is why it is so important to incorporate into the curricula of interpreting students the notions of working with new technological tools and the new interpreting practices that we witness in the labour market. Therefore, the new generation of interpreters should assimilate into their practices and keep up to date with CAI tools to enhance their professional practice.

Following these results, we try to include in our future research more study groups (i.e., trainee interpreters from other universities or MA students) and to conduct an in-depth analysis of the challenges and shortcomings that arise during the preparation of an interpreting assignment. Research in the promising field of interpretation and new technologies is significant as their integration can lay the foundation for novel teaching methodologies and more efficient interpreter practices.

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CAI tools for MA students: a didactic experience with Interpreters' Help

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Abstract. The preparation of an interpreting assignment is often laborious and it usually must be done under time pressure. To optimise this task, new software for interpreters to manage and optimise terminology has been developed in recent years. As a result, trainers feel the need to incorporate these digital tools into their teaching. Here we will present the outcomes of a didactic experience carried out with Interpreters' Help for students of the MA in Conference Interpreting for Business. The didactic proposal was designed so that participants would learn to create digital glossaries and use them later in other subjects of the master's degree. The task consisted of two parts: (1) collaborating on a glossary on macroeconomics and (2) posting on the subject's forum their opinion on the tool. Finally, a survey was carried out to determine whether the students had been able to incorporate this tool in their studies or in the preparation of speeches.

Keywords: CAI tools, interpreting training, Interpreters' Help.

1   Introduction

The extensive use of technology in society has also had an impact on conference interpreting. For the past two decades, interpreters have been working with the support of digital tools known as computer-assisted interpreting (CAI) tools. But it was the pandemic that brought about a definitive change in this profession. Confinement forced the implementation of remote simultaneous interpreting (RSI) in a multitude of meetings, leading to a significant growth in this form of interpreting, which until then had been practised on a smaller scale. Many studies understand this technological shift as a new paradigm (Fantinuoli 2018, Jiménez 2019) that is substantially changing the working environment of interpreting and whose future is difficult to predict. However, one thing is clear: new technologies will turn into "subcomponents" (Fantinuoli 2021: 519) of that working environment. There is now talk of "augmented interpreting" (see KCI in bibliography) with the understanding that technology must support the interpreter's cognitive task and not become another attention-distraction factor.

This technological shift expands rapid in the field of interpreting and as Amelina and Tarasenko (2020) advise, it would be pertinent to include the study of CAI tools in the training of professionals. Unlike the field of translation, where new technologies have

been fully integrated into the curricula, the teaching of interpreting has not yet reached this level of maturity, as shown by the study carried out by Prandi (2020). Among other reasons, one of her arguments is that there is still confusion surrounding the fundamental concept of CAI. Moreover, there are experienced interpreters with their own terminology management systems and thus do not find it necessary to deal with the new tools and therefore do not include them in their teaching. Nonetheless, Prandi's study shows that there is a clear interest in integrating CAI tools into the curriculum of interpreting programmes in Europe.

2   Description of the didactic experience

Taking into account this new environment, we consider it essential to train students in these new tools, especially terminological resources. In one of the theoretical subjects of the MA in Conference Interpreting for Business[1], which is taught online at the beginning of the course, we have designed an assignment to familiarise graduates with a CAI tool, namely Interpreters' Help. This is an international digital terminology management platform, designed specifically for interpreters, which offers free educational subscriptions to universities with official interpreting programmes. The tool is cloud-based, allows to create and manage glossaries with a storage capacity of 2 GB, export them to PDF or Excel, use the public glossaries of other users, share them and custom them as required. At present, almost 7300 glossaries can be found in 42 different languages. Other functions offered on the platform include training resources such as videos of real speeches for practice or links to other interpreting resources (mainly speech repositories and terminology databases).

The task we designed took into account several didactic approaches such as *collaborative learning* (all students participated in the same glossary, as well as in the tool's evaluation forum), *situated learning* (as it is a real professional tool that allows contact with interpreters from all over the world) and from a *perspective that overcomes Eurocentrism*, as advocated by De Manuel (2019). In this sense, subgroups according to the students' language combinations − Chinese and English − were not formed in order to encourage cross-cultural teamwork. A total of 18 graduates participated: five of them in the English-Spanish language pair and thirteen in the Chinese-Spanish language pair.

Once the participants had registered on the platform (with help of an explanatory video) and after creating a profile, they could access an English-Spanish-Chinese glossary on macroeconomics, created by the teachers, which already defined the fields of the glossary and included some terms in the three languages. In this way, our aim was to provide students with an easy introduction to this tool while fostering a collaborative work environment where all team members work together towards a common goal and benefit from each other's contributions. The following options for cooperating in the shared glossary were offered:

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[1] This is a postgraduate program from the University of Alcalá (Spain) and it consists of 60 ECTS credits. It is offered in the language combinations English-Spanish and Chinese-Spanish.

- Adding three new terms in the learner's language pair (terms could not be repeated)
- Adding three definitions or contexts of existing terms (with the column option)
- Searching for other users' glossaries of interest and share them in the forum Using the extraction tool with texts or speeches related to the speeches they had to interpret.

All students completed this task; all of them added new terms, definitions or contexts and then participated in a feedback forum to evaluate the experience. They were asked to consider the following aspects: the usefulness and user-friendliness of the platform, the functions it offers, its application in the interpreter's job, the possibility of working collaboratively and the possibility of reusing other glossaries.

2.1 Forum summary

In the comments we could see that the students had spent time researching and working with the tool, as they clearly and thoughtfully detailed the advantages and disadvantages of Interpreters' Help, assessing all the options it offers.

Beginning with the first aspect they were asked to discuss; the great majority of the participants mention the platform's interface. It is accessible, easy to use and very intuitive: it is simple, but its functions have a high degree of usability in the professional's day-to-day work. Interpreters' Help is very user-friendly and in a short time you can understand how it works and start using the tool. However, the forum also notes that, although it can be accessed from any device, it would be desirable for the tool to work as an application on mobile devices or for its website to have a mobile version and/or be adapted to the screen size of these devices.

Just as the majority coincides with the usability of the tool, most of them highlight as well the glossary management and creation function. They all agree on the many advantages of being able to create and manage their own glossaries and decide whether to publish them or keep them private. Moreover, it is a platform that has a large number of glossaries already created by other users and which are grouped together on the tab called Glossary Farm. This feature enables users to collaborate with other registered interpreters, whether professional or amateur, regardless of their nationality. The students acknowledge the vast utility of collaborative glossaries, but they also propose to implement an option for the glossaries' owners or the other collaborating members to verify terms in order to achieve higher terminological quality.

Graduates also emphasise the flashcards function. They find it really entertaining and interesting as the user can learn the terms and prepare for the interpretation in a different and very interactive way. Another aspect that they find practical is the speeches database in the Community tab. These speeches are in video format (very helpful for the interpreter) and are public; most of them are TED talks and many languages are available.

Continuing with the functions and their practical application in the daily work of the interpreter, the trainees appreciate the integration of a calendar designed for the

interpreter: it allows productive management as assignments can be organised by clients, types of events and working languages, among others. The document storage function was rated as functional in the forum because Interpreters' Help allows documents to be uploaded and saved and only the user has access to them.

Furthermore, the participants value very positively the simplicity of managing, adding and ordering columns and rows in the glossaries, the ease of exporting and importing glossaries in different formats, the vast number of languages available, the quick term-search, and the possibility of creating a community with other interpreters. With the latter, they find it a very practical option as they can draw on knowledge from glossaries created by other users and it saves them preparation time if they find one that suits their interpreting assignment.

Interpreters' Help allows both professionals and interpreting students to search, create and share glossaries and manage their assignments and work on the same platform. All the comments on the forum were positive about the tool and pointed out the great potential it could have among interpreters.

3   Survey results

Once the subject had finished and near the end of the course, a survey was carried out on the tool *encuestafacil* to find out whether the students had continued to use the platform in other subjects or in extracurricular interpreting practices. The survey consisted of eight short questions (three multiple-choice and five open-ended questions): (1) Have you used the Interpreters' Help tool in other subjects? (2) If yes, in which ones? (3) Have you used Interpreters' Help to prepare for any interpreting practice? (4) If yes, for which ones? (5) If you have continued to use the tool since we worked with it, which function(s) do you use the most? (6) Do you think you will continue to use this tool in your professional life? (7) Have you used other CAI tools? Which ones? and (8) Which CAI tool do you use the most and why? We received a response from 55,5% of all the respondents with the following results:

- 70% of surveyed continued to use Interpreters' Help, especially in consecutive and bilateral interpreting subjects.
- 30% has also used the tool for interpreting practice outside the classroom (e.g., in a dummy booth at university conferences).
- The most frequently used functions were those of glossary management and searching for other public glossaries.
- 80% of the responders reported that they will continue to use the tool in their professional life.
- 20% referred to have used ChatGPT and Google Translator for the preparation of interpreting assignments, but they did not indicate other more specialised tools for interpreting.

4   Conclusions

The didactic experience has shown that the Interpreters' Help tool has been received very positively by the students, who consider it intuitive and with useful functions for the preparation of interpreting assignments. They particularly appreciate the easy glossary management, the sharing of public glossaries and the flashcards function for quick terminology memorisation. Some of them have even proposed improvements for the platform, which reflects analytical thinking about the features and usability of the resource.

We have realised that having introduced this practice at the beginning of the course, has had an amplifying effect in other subjects as participants have also used it for speech preparation, especially in consecutive and bilateral interpreting subjects. Most of them report that they intend to continue using this tool in their professional life.

We also have seen that apart from ChatGPT and Google Translator, they did not use other CAI terminology management tools, although workshops were held to explain other resources such as Sketch Engine or InterpretBank. The fact that most trainees focused on the Interpreters' Help platform may point out that it is perceived as a very easy tool to use, coupled with the possible "overshadowing" effect on other resources, since it was introduced at the beginning of the course with a guided practice.

We believe that it would be positive for graduates to practice with several CAI software to compare different functionalities and to analyse if other resources are more appropriate for the interpreting modalities and contexts, as well as to their own needs and preferences. Greater knowledge will also enable them to reflect more critically on the impact of technologies on the interpreting sector.

In this sense, it seems important to us to foster a critical spirit among students regarding the changes that the increased use of new technologies and, in particular, the growing applications of Artificial Intelligence are bringing about in society. The new technological paradigm, in which the future of interpreting is difficult to predict, requires preparing graduates not only for the current market conditions as Pacheco and Dizdar (2020: 361) appeal. This implies that we must also assume our responsibility as trainers. Thus, reflecting on the social and ethical implications of technologies in curriculum design becomes an urgent task that we think should be undertaken in interpreting education programmes.

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Simultaneous Interpretation (SI) facing the Zoom Challenge: technology-driven changes in SI training and professional practice

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Abstract. This paper investigates how the massive post-pandemic use of Zoom for simultaneous interpretation (SI) has transformed its practice and teaching. Drawing on data from refresher courses and the University of Bologna's MA Program in Interpreting, the study identifies challenges and best practices for utilizing this general-purpose video-conferencing platform in remote SI.

Keywords: remote simultaneous interpreting (RSI), Zoom, interpreter training, professional practice, technology-driven changes

1 Introduction and methodological aspects

1.1 Pre and post-pandemic scenario: RSI provision and training

Remote simultaneous interpreting (RSI) has a history predating the COVID-19 pandemic, with experiments dating back to the early 1970s (Flerov: 2015), while RSI pilot solutions were developed from the early 2000s onwards (Seeber et al: 2019). The mid-2010s saw the emergence of professional software-based solutions in the RSI[1] market. In 2019, the European Commission Directorate General for Interpretation (DG SCIC) was asked to analyze four RSI platforms to collect data for subsequent ISO standard elaboration (DG SCIC: 2019). This need for standardization indicated that the SI market was already changing (Jiménez Serrano: 2019), and the pandemic only accelerated the process.

Before the pandemic, SI's technical equipment had remained largely unchanged for decades, making RSI a significant shift in the interpreting provision scenario. When the pandemic hit, multilingual meetings were rapidly transitioned online due to social distancing measures, leading to a massive shift towards exclusively online services (Liu:

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[1] Interprefy, Interactio, Voiceboxer (now "Boostlingo") and Kudo. [source: www.interactio.io; www.kudoway.com; www.interprefy.com; www.boostlingo.com – Last visited: March 2023].

2022). This change also applied to SI training, as universities and interpreter training providers had to adapt quickly.

RSI software providers experienced considerable momentum due to these rapid changes (Defrancq & Fantinuoli: 2021), and new commercial players emerged in the market. The pandemic led to an unprecedented growth in demand for RSI services and licenses. At the same time, general-purpose video-conferencing platforms, like Zoom, began to be used for RSI provision, resulting in the "Zoom boom" in interpreting (Chmiel & Spinolo: 2022). Although not specifically designed for RSI, Zoom was used by 78.5% of respondents in a survey of 311 professional conference interpreters (*ibid.*).

The reasons behind Zoom's popularity for RSI, despite being unprofessional and unspecific for this purpose, include cost-related factors, its widespread use, and its user-friendly design. The Interpretation feature was implemented as an add-on (Saeel et al: 2022), and the platform's design and interface are flexible, making it suitable for different types of online events.

However, the rapid transition towards unspecific general-purpose software like Zoom for RSI provision brought about challenges for interpreters that went beyond mere technical aspects (*ibid.*). These challenges include concerns about interpreters' working conditions and their impact on the profession (*ibid.*). The "Zoom boom" has highlighted the need for further examination of how to best use this general-purpose video-conferencing platform for RSI and how this platform affects the interpreting profession in the long term.

1.2 The two case studies: CPD and academic training

This research investigates the changes in RSI via Zoom through two case studies: a cycle of refresher courses for professional conference interpreters (CPD) from 2020 to early 2023, and a teaching sub-module for MA students in Conference Interpreting at the University of Bologna. The two case studies, chosen for their different yet comparable training scenarios, focus on the shared use of Zoom for RSI.

The first case study (CPD) involved professional conference interpreters with diverse backgrounds, language combinations, and working contexts. Their commonality was working in the private market and needing a specific course to improve their use of technology for RSI via Zoom. Due to high demand, extra editions of the course were added, resulting in six live training sessions and 25 asynchronous sessions, involving a total of 124 conference interpreters.

The second case study focused on a small group of second-year students in the MA Program in Interpreting at the University of Bologna. They practiced part of their SI skills using Zoom during the course in Conference Interpreting from Spanish into Italian. A focus group with these students revealed problems and specific training needs related to using Zoom for RSI, as it was frequently used for their SI training during and after the pandemic, as well as for curricular and extra-curricular activities.

Both training scenarios identified challenges in using Zoom for RSI and a set of preliminary best practices to improve remote collaboration among interpreters and SI provision in general. The weaknesses and best practices listed integrate the experience of all participants, including professional conference interpreters, interpreting students,

and the two practisearchers (Gile: 1994) and have been identified through a set of focus groups both with the first and second case study participants.

2 Problems reported in the use of Zoom for RSI

2.1 General issues

The analysis of the two case studies uncovers challenges in RSI that are both general and specific to Zoom. Research indicates that RSI is cognitively more demanding than traditional in-person SI due to factors such as a lack of control, sense of presence, isolation, alienation, and technical issues like connectivity and sound/video quality (Kurz: 2003, Moser-Mercer: 2005, Roziner & Shlesinger: 2010, Mouzourakis: 2006, Winteringham: 2010, Chmiel & Spinolo: 2022).

Additional challenges emerge from the visual needs and increased human-computer interaction in a cloud-based environment, which contributes to higher cognitive demand (Ziegler & Gigliobianco: 2018, Saeed et al.: 2022). Interface design plays a critical role in improving usability for interpreters, who must manage multiple modal inputs.

A recent survey among conference interpreters (Chmiel & Spinolo: 2022) highlights the most problematic aspects of RSI, such as seeing the speaker and slides simultaneously, interacting with remote boothmates, and managing Q&A sessions, which are particularly challenging in both in-person and online conferences. These issues emphasize the need for further improvements in RSI platforms, including Zoom, to better support interpreters and enhance the overall interpreting experience.

2.2 Platform-specific issues

Scientific research struggles to keep up with the rapidly evolving RSI scenario, especially in the context of Zoom, a video-conferencing platform whose interpretation feature add-on has enabled its use for RSI (Chmiel & Spinolo, 2022; Zhu & Aryadoust, 2022; Saeel et al., 2022). The analysis refers to the 6th March 2023 5.13.11 version of the Zoom software for Windows.

Interpreters face multiple issues, as Zoom was not initially designed for RSI (Chmiel & Spinolo, 2022). The platform lacks interpreter-friendly flexibility, visual input, and privileges, while collaboration and communication with boothmates remain problematic (Saeed et al., 2022). Despite the introduction of the *relais*[2] or relay function in Zoom's 5.9.6 release (28th February 2022), interpreters still struggle with missing features such as a separate chat or volume adjustments (Chmiel & Spinolo, 2022).

Working with a non-co-located boothmate increases cognitive load and affects interpreting performance (*ibid*: 256). Therefore, remote collaboration is crucial for

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[2] Multilingual *relais* (or relay) is a common practice needed when the interpreter from an A to a B language does not understand the C language spoken by one of the participants and therefore relies on the C to A language interpreter to provide their own interpreting into the B language.

researchers, practitioners, and software engineers to ensure smooth and fast communication during complex cognitive tasks like simultaneous interpreting (Davitti & Braun, 2020; Saeed et al., 2022).

Zoom's lack of a microphone handover function poses challenges, as it is considered a key feature alongside mute control and meeting exit buttons (Saeed et al., 2022).

Visual input issues arise from potential distractions, difficulties in changing spatial visualization, managing multiple tabs, and seeing both the speaker and slides together (Chmiel & Spinolo, 2022; Saeed et al., 2022). Additionally, both groups in the case studies reported challenges with managing multiple virtual booths and relays in Zoom.

Ethical and confidentiality concerns have emerged with Zoom's 6th November 2022 server-side update, which records the floor and all virtual booths in the cloud by default, raising data confidentiality concerns and conflicting with professional guidelines such as those provided by AIIC in its 2016 Memorandum[3].

Furthermore, hosts and event organizers face difficulties when scheduling meetings or webinars with language interpretation features, as these are not available for all licenses and are subject to limitations (maximum of 20 interpreters). Additionally, the process of activating and managing the interpretation panel during a meeting requires proficiency in using the platform and this can be particularly challenging for inexperienced users, affecting how the interpreting task is perceived and carried out (Chmiel & Spinolo, 2022).

Users of interpretation services also encounter problems, such as difficulty finding the interpretation button, balancing the volume between the floor and the interpreter, and the absence of interpretation features in break-out rooms.

In summary, the main issues reported by the two groups in the case studies are divided into three primary areas: interpreter-side, host-side, and attendee-side.

Table 1. Summary of the main issues reported in the two case studies.

Category	Reported issue
Interpreter-side	Interpreter interface design; The interpreter is an "ordinary" participant; Difficult to listen to the boothmate and adjust the floor/boothmate ear balance; No dedicated chat for interpreters; No mic handover feature; Difficult to select the right audio input in *relais* mode; Default cloud recording.
Host-side	Difficult to schedule an interpreted event; Difficult to manage the interpretation panel; Max 20 interpreters per session.

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3 AIIC Memorandum concerning the use of recordings of interpretation at conferences, last updated Sept 2016: https://aiic.org/document/4427/Memorandum%20concerning%20the%20use%20of%20recordings%20of%20interpretation%20at%20conferences%20-%20ENG.pdf [last visited March 2023]

Attendee-side	Difficult to see the interpretation button; Poor floor/booth volume balancing; No interpretation feature in break-up rooms.

3   Best practices emerged in the use of Zoom for RSI

3.1   General preliminary settings

The increasing demand for remote communications has led researchers, interpreter trainers, and the interpreters' community to develop guidelines for RSI encompassing general requirements and recommendations, such as those found in studies by Causo (2011), Braun (2015), and Saeed et al. (2022), as well as technical recommendations from professional associations like AIIC, whose Taskforce on Distance Interpreting provided guidelines for working conditions, connectivity, and equipment requirements for RSI, including simultaneous and sign language interpreting.[4]

AIIC suggests using a stable wired Ethernet connection with 4 Mbps up and download speed for each video feed and a backup internet access option. They recommend wired headphones and microphones with a frequency response of 125-15,000 Hz, noise and/or echo cancelling, acoustic shock protection, and an additional computer/double screen or second device. AIIC also emphasizes the importance of a secure, soundproof, and noise-free workspace.

The use of a double screen or secondary device, such as a tablet, is particularly relevant when using Zoom for RSI. Saeed *et al.* (2022) recommend a clean and minimal interface, interactivity for non-verbal visual inputs among interpreters, and avoiding distractions on the main screen. Participants in the two case studies found a secondary device helpful for glossary viewing, document preparation, online searches, backchanneling, and remote communication with boothmates. This aligns with Chmiel & Spinolo (2022), who found that most respondents used an external chat on a separate device to interact with boothmates.

Tablets were considered a user-friendly and interactive solution for terminology searches and backchanneling, allowing interpreters to split their attention more easily without relying on a single computer for all tasks. This approach improved the visual organization and searchability of glossaries/documents and enabled non-verbal instant communication with boothmates through a dedicated video channel.

3.2   Platform-specific best practices

The two case studies identified specific best practices for using Zoom in RSI, addressing shortcomings in boothmate cooperation, visual organization, and interaction between interpreters, hosts, and attendees (5.13.11 Zoom version). These best practices, summarized in Table 2, cover four categories and aim at improving various aspects of RSI on the platform:

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[4] https://aiic.org/site/world/about/profession/distanceinterpreting [last visited March 2023]

Table 2. Summary of the main best practices that emerged in the two case studies.

Category	Best practices
Boothmate coopera- tion and microphone handover manage- ment	Separate dedicated channel for better com- munication; Use of a virtual audio mixer to balance audio sources (floor/boothmate); Webcam on a secondary device for handover management and non-verbal communication with the boothmate; Use of shared doc/backchannel or virtual blackboard for prompting.
Visual aspects	Switch to a side-by-side view to see the presentation and the speaker at the same time; Move the language directionality bar.
Host/co-host collab- oration	Being also co-host to have more privileges in interactive meetings (switching attendees' mic on/off).
Attendees-related as- pects	Where possible, switch the interpreter's webcam on for better understanding from the attendees.

A key practice is maintaining a secondary private channel for communication with col- leagues, preferably using a second device or double screen (Chmiel & Spinolo, 2022). This setup enhances concentration, avoids distraction, prevents unintentional clicks on the Zoom interface, and provides an alternative in case of technical issues or emergen- cies. It also allows interpreters to secure a private channel for effective collaboration, as relying solely on Zoom's inflexible chat feature is unsafe and inconvenient.

Utilizing video communication systems on a secondary device can improve inter- preter collaboration by adding a visual element, allowing for non-verbal communica- tion without relying exclusively on typed chats. The use of a webcam on the secondary device can make the complex handover passage smoother since it is easier to see the boothmate switching their microphone on and off and starting or stopping speaking.

When it comes to listening to the active boothmate, Zoom made this technically pos- sible with its 5.9.6 release. However, both groups analyzed in the case studies high- lighted issues with this operation due to the lack of balance or cross-fade between the floor and the boothmate's volume. To address this, the use of a virtual audio mixer for audio input balancing is recommended[5].

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[5] Among the most frequently used virtual mixers is Voicemeeter for Windows and Audio Hi- jack for Mac (https://vb-audio.com/Voicemeeter/ and https://rogueamoeba.com/audiohijack/) [last visited March 2023]

Remote prompting is another crucial aspect of booth collaboration: this can be done through shared documents allowing real-time collaborative modifications, private channels (text chat) with the boothmate, or virtual blackboards replicating the traditional notepad interpreters share in physical booths.

Regarding visual organization, activating the "side-by-side view" feature in Zoom allows interpreters to see the presentation and speaker simultaneously, adjusting their size as needed (*ibid*.). The Zoom 5.13.5 update enables interpreters to move the language directionality button for better slide visibility.

The final set of best practices is organization-related and attendee-oriented. Making interpreters co-hosts can help manage attendees' microphones in case of emergency, as hosts may not always be able to mute microphones immediately. Many participants in both case-study groups reported that it is sometimes difficult for the main host/co-host to mute unintentionally activated microphones, which may interfere with the active interpreter's understanding of the main speaker.

Lastly, Zoom is one of the few platforms that allow interpreters to activate their webcams when needed. In some types of meetings, the possibility for attendees to see the interpreter can improve their level of understanding of the interpreted speech (Cecchi, 2021; Amato et al., 2018). Implementing these best practices can enhance the RSI experience on Zoom, addressing its key limitations.

4   Conclusion: new skills, new working modalities, new challenges, new opportunities

The rapid shift in conference interpreting due to the pandemic accelerated existing technology-driven changes, impacting RSI practice and training. However, research has struggled to keep pace with innovation in working modalities and technology solutions. This paper examined Zoom, an unspecific video-conferencing system, which has become widely used for RSI despite not being designed for it. The study explored Zoom's use from the perspectives of practitioners (case study n. 1 – CPD) and interpreter trainers (case study n. 2 – academic training).

The findings highlighted issues and best practices in using Zoom for RSI, emphasizing the need to adapt the platform to interpreters' needs and explore its technological challenges and possibilities. The study revealed the necessity of acquiring new skills and adapting to hybrid additional services, such as subtitling, transcription, voice-over, minutes drafting, and respeaking. These skills impact practitioners' service delivery and professional development, making them crucial for interpreter training. Integrating these technology-driven changes into academic curricula is essential to address the unprecedented shift in the profession.

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Students and teachers' evaluation of the interpreting software Labtra: Master's Degree in Conference Interpreting for Business (MICONE), University of Alcala

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Abstract. The Master's Degree in Conference Interpreting for Business from the University of Alcala is a postgraduate program which provides training for prospective conference interpreters. The software used in the interpreting booths is Labtra, which is a specific program to manage the different features that can be used for teaching and learning purposes simulating professional interpreting environments. During the development of the different courses of the mentioned study program, we have perceived some difficulties in its use from the part of both trainers and trainees regarding mainly how to manage some of its functionalities, which we believed could hinder the achievement of the learning outcomes. Therefore, the aim of this study is to find out the perceptions of both interpreting students and trainers when using this software. For this purpose, a survey was distributed among both groups of participants from the master. Despite the observed difficulties in its use, the results obtained show a very high level of satisfaction from both groups when using it.

Keywords: Interpreting, conference interpreter, MICONE, interpreting-related software and training.

1 Introduction

1.1 Conference interpreting and pedagogy

According to AIIC (1984) and Diriker (2015) conference interpreting is understood as "the communication of messages which have been delivered in one language into another at formal and informal conference and conference-like settings". In conference interpreting we can find different modes of interpreting, and these enable the communication between people who do not speak or understand the same language.

The most common modes of interpreting used in conference interpreting are simultaneous interpreting and consecutive interpreting. Simultaneous interpreting is "a mode of interpreting in which the speaker makes a speech, and the interpreter reformulates the speech into a language his audience understands at the same time" (Setton, 1999). Simultaneous conference interpreters normally work in soundproof booths which are

equipped with a specific system that allows hearing what the speaker says, and, at the same time, they can transmit the interpreted message to the listeners who are wearing headsets that have different floor for each language (Diriker, 2015: 171).

It is important to remark that interpreting has existed for centuries, however conference interpreting would be considered as a "technology-assisted solution in meeting the demand for efficient cross-cultural communication" (Baigorri-Jalón, 2015: 23). During the past years, many courses and postgraduate programs on conference interpreting have emerged for those who were interested in this profession. There have been consistent efforts by professional associations as CIUTI, universities consortiums as EMCT, and professional organizations as AIIC to push for professional standards and improve training quality (Bao, 2015: 414).

This emergence in pedagogy of conference interpreting has indicated the importance to make sure that interpreter training is done properly and professionally (Laviosa & Meng, 2020). Therefore, to ensure the quality of training, it is desirable to have as conference interpreter trainers two types of staff: professional interpreters and researchers specialized in this field. In addition, it is worth to mention that teaching quality will improve if interpreting classrooms have the appropriate facilities, such as interpreting booths and a specific software to simulate international conferences.

1.2 MICONE and the interpreting software Labtra

The master's degree in Conference Interpreting for Business (MICONE) from the University of Alcala (UAH) is a postgraduate program of 1 academic year, 60 ECTS, with 14 compulsory ECTS common to both language combinations, 26 compulsory ECTS of each language combination, 8 ECTS of optional curses, 6 ECTS of internships and 6 ECTS of master's degree Project. MICONE emerged in 2019 with two language combinations Spanish-English and Spanish-Chinese (Valero-Garcés, 2021). It counts with two types of teaching staff: professional interpreters and specialized researchers in conference interpreting.

MICONE's main purpose is to train students by teaching them the following skills (1) specialize in conference interpreting for business, (2) proficiency in interpreting techniques: bilateral, consecutive, simultaneous, whispered, (3) proficiency in professional communication in interpreting booths, (4) increasing socio-cultural awareness, and knowledge of current events and business-related contexts, (5) stress tolerance, (6) working under pressure and (7) theoretical knowledge of professional aspects and the code of ethics of conference interpreting.

Moreover, it is important to remark that MICONE counts with appropriate technical facilities; 12 equipped booths which provide good visual and two-way audio communication between the interpreters and the participants, and specific software for teaching and learning how to interpret (Labtra). This software is a system for training interpreters, and it makes classes more attractive, enriching, and a fun experience for students and trainers.

Labtra can be considered as "an innovative and a state-of-the-art teaching tool designed by and for interpreters" (LABTRA Digital, 2023). It is the first system designed for teaching students on how to interpret in the field of congress and conference rooms.

This software is based on "groundbreaking multimedia technologies" and thanks to that interpreting students can practice with the same equipment that they will use one day in their profession (LABTRA Digital, 2023).

Labtra presents some advantages for both, students, and teachers. On one hand, students will be orally communicated with the teacher and with their classmates, and they will be able to talk among themselves, share experiences, ask for help or work in pairs or groups. And, on the other, everything will be controlled by the teacher. Students can work on his/her own computer, but the teacher can talk to them individually and follow the student's work through his/her desk.

The software Labtra it is not only used in the University of Alcala, but also in several other universities here in Spain, such as University Rey Juan Carlos (URJC), Complutense (UCM) and Catholic University San Antonio of Murcia (UCAM).

Img. 1. Main screen.

Img. 2. Booth management

However, it must be mentioned that we have perceived that when trainers and trainees start using Labtra for the first time, they feel a bit overwhelmed due to the different functionalities that it offers. That is why we wanted to conduct a survey to find out the level of satisfaction from both groups and consider gather data on what needs to be done to improve for the next academic year.

2   Methodology

The present research study is a qualitative study, and it rates the grade of satisfaction of MICONE's students and teachers through a validated, anonymous, and voluntary survey. The survey was designed with Microsoft Forms and disseminated through a link which was sent to the participants' institutional email. It was validated by two experts from the University of Alcala.

The main participants in this study were MICONE's teachers, students, and alumni. The main purpose of this study was to obtain participants' opinions about teaching/learning conference interpreting by using the software Labtra.

The obtained data was treated in an anonymous way during the whole process. Once data was analyzed and published, it was destroyed. It is important to mention that during the response process, the main researchers were the only ones who had access to the responses. Once the survey finished, the authors of this study created an Excel file to analyze the obtained results.

This survey is made up of 12 questions which help to rate the degree of satisfaction of each of the participants, being 5 the highest degree of satisfaction and 1 the lowest one. The questions are the following:

1. Select the option that best fits your profile
    - o Teacher
    - o Student
    - o Alumni
    - o Alumni and now teacher
2. How useful do you find Labtra as a software for teaching/learning to interpret?

1	2	3	4	5

3. The software is very easy to use

1	2	3	4	5

4. At the beginning, it was easy for me to figure out how to use the software

1	2	3	4	5

5. Labtra is a user-friendly software

1	2	3	4	5

6. On my screen I like how Labtra looks

1	2	3	4	5

7. Labtra is an easy system for teaching/learning conference interpreting

1	2	3	4	5

8. Have you had any problems with software freezing or crashing?
    - o Yes
    - o No

9. If so, tell me if it was easy to fix it
10. Have you had any problems with Labtra integration with other programs?
    o   Yes
    o   No
11. Would you recommend this software for further training of interpreters/learning conference interpreting?
    o   Yes
    o   No
12. Comments you would like to add

It is also important to mention that no sample size was established for this research. According to previous experiences a low rate of participants normally answers these types of surveys. That is why encouraging participation is a key point.

We consider that the data obtained and discussed in this research study can help us improve interpreting conference training and software's quality, since it is important to take into consideration teachers and students experiences during the training process.

3   Results and discussion

In this section we can find the results obtained from the satisfaction survey about the interpreting software Labtra located in MICONE's interpreting laboratory. Also, it is important to remark that we sent the survey to 58 people from MICONE's staff, and we finally obtained 33 responses, so 56.89% of the participants answered the survey.
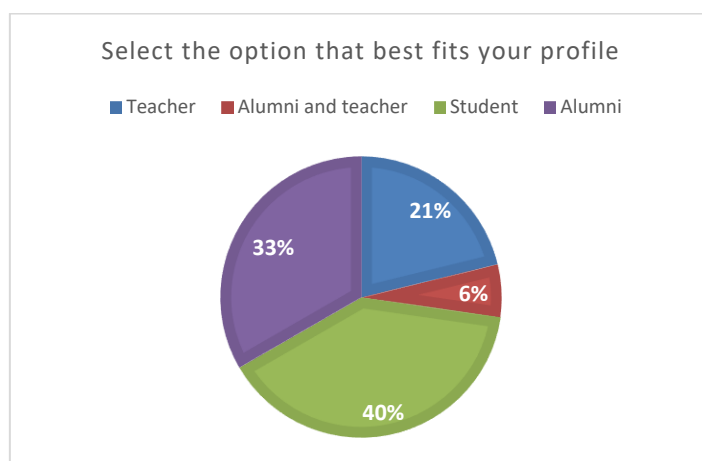

Fig. 1. Question 1. Select the option that best fits your profile.

Figure 1 shows the profile of participants who respond to this survey. 40% of them were students enrolled in MICONE's current academic year, 2022/2023. 33% of the respondents were alumni and 21% were teachers of MICONE. Finally, we can find that 6% of the participants were alumni and teachers. This means that they were students of

MICONE during previous academic years and now are also participating as trainers in the program.
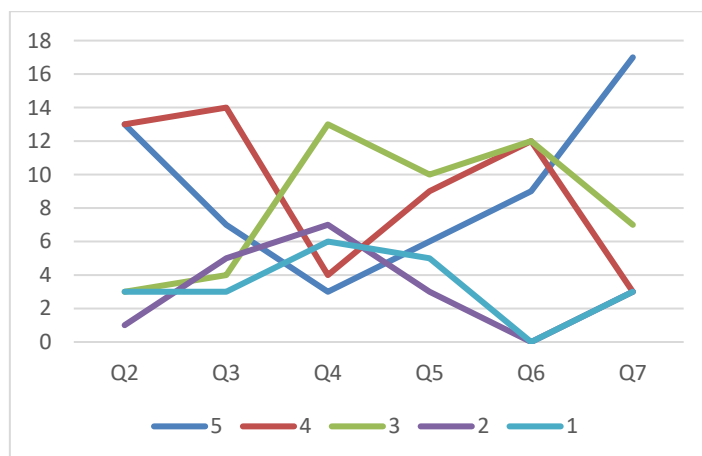

Fig. 2. Summary questions 2 to 7.

In the graphic of figure 2, we can find a summary of the obtained results from questions 2 to 7. The participants in this survey establish the following average for each question: question 2, 3.96 out of 5; question 3, 3.51 out of 5; question 4, 2.72 out of 5; question 5, 3.24 out of 5; question 6, 3.9 out of 5 and question 7, 3.84 out of 5.

The final average established for software Labtra is 3.53 out of 5, this means that it is a good software for learning and teaching simultaneous interpreting, but it is still a new tool. That is why many of our teachers and students find it a bit confusing at the beginning, which is in line with what we had previously established.
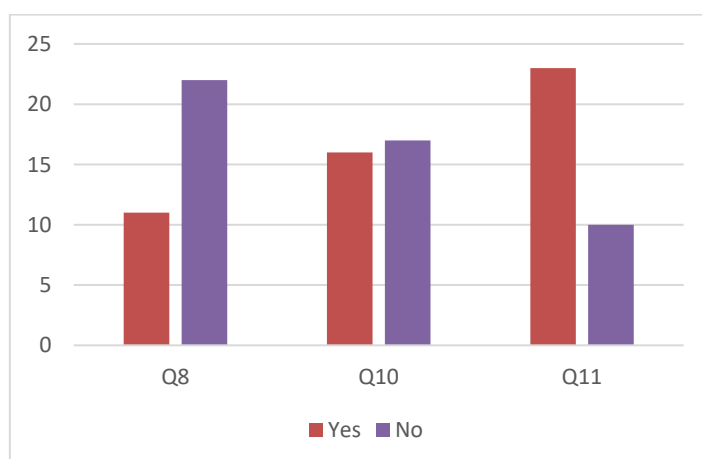

Fig. 3. Summary questions 8, 10 and 11.

In figure 3 graphic we can observe that comments and opinions about Labtra are mainly positive. In question 8, when we ask participants if they had any problems with software's freezing or crashing, only 33% of them answered "yes" and the majority claim that they had no problems with Labtra. In question 10, we can see that 51% answered that they never had any problems with the integration of Labtra with other programs. And in question 11, 69% of the respondents answered that they would recommend this software for learning and teaching simultaneous interpreting.

ADVANTAGES	DISADVANTAGES
Labra increases our students' capacity and knowledge on how to work with booths.	It is not easy to use this software if you are not familiar with it.
It makes our students experience real-life situations in class.	It is important to make some improvements. For example, Labtra has to be launched every time you want to start a video or switch to another one. This wastes a lot of time and breaks the class rhythm.
Labtra many times ease my work because the software allows me to access to each student's computer and monitor his/her work.	Labtra only works with a specific video format, which limits teachers' work.

Tab. 1. Advantages and disadvantages of the usage of Labtra in interpreting class.

In table 1 you can observe the most relevant advantages and disadvantages provided by the respondents to the survey in questions 9 and 12. These responses will help us to improve this software and simultaneous interpreting classes, in general.

4   Conclusions

MICONE is a new postgraduate program for training future conference interpreters in business settings. This program counts with the necessary technological tools (booths, micros, sound equipment, etc.) and a specific software for simulating real congress situations (Labtra). However, the use of this technology and the software Labtra can make classes a bit difficult for our teachers and students creating some advantages and disadvantages.

The main advantages are the following: increase our students' capacity and knowledge on how to work with booths, makes them experience real-life situations working in pairs like in conferences, helps them to overcome stress situations, and prepares them for the job market as professional conference interpreters. It is worth to mention that Labtra also ease teachers' work because it allows them to have access to each student's computer and control the interpreting process.

Nevertheless, some disadvantages exist too. Some students feel a bit lost at the beginning when they see the technology that they have to deal with in the booth. This can

also generate stress or fear to work with such a new tool. That is why it is important to prepare them and explain how they have to use each tool and the software Labtra. Another disadvantage is that most of the interpreting trainers are not familiarized with Labtra, so this makes them feel confused and waste class time. Some teachers think the following about this software "it is important to make some improvements. For example, Labtra has to be launched every time you want to start a video or switch to another one. This wastes a lot of time and breaks the class rhythm".

In conclusion technology and software usage in conference interpreting classes is a new challenge which has to be further developed so as to make it something normal and accepted by trainers and learners. A possible solution to these disadvantages that will be implemented in the next academic year will be a training course on technological interpreting tools and software for teachers and learners before the start of MICONE's classes that will be recorded so that they can have access to it each time a doubt arises regarding how to use them. Further research into the use of technological tools will be also conducted so as to find out more specific challenges and also how perceptions of both trainers and trainees evolve during the next academic years.

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Interpreting-Related Technology as an Assistant in the Classroom and as a Self-directed Lifelong Learning Method

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Abstract. Very little research has been conducted on interpreting-related technology. The reasons for this may range from the fact that the technology is very new, to the ways in which we can apply it in interpreting. This paper offers two main ways we can apply this technology: as an assistant in the classroom and as a self-directed lifelong learning method for students/interpreters.

Keywords: Interpreters, Needs, Technology, Assistance, Learning.

1 Introduction

Technology in interpreting is not a new topic, although it is more recent when compared to that of translating. However, the number of research papers on technology in interpreting is increasing. Fantinouli (2018), in reference to the book he edited titled *Interpreting and technology*, stated that "to the best of my knowledge, this is the first book entirely dedicated to this subject". The book was published in 2018, making it a relatively recent publication.

Interpreting has been impacted by technology thanks to two major technological breakthroughs: a) the simultaneous interpretation equipment patented by IBM in the early 1920s and used at the Sixth Congress of the Communist International in the former Soviet Union; and b) the internet, which emerged in the 1990s (Fantinuoli, 2018: 2). Furthermore, interpreting is experiencing its third major technological breakthrough due to the ongoing developments in technology.

It is generally agreed that interpreting-related technology can be divided into three categories: computer-assisted interpreting (CAI), remote interpreting (RI) and machine interpreting (MI). Firstly, computer-assisted interpreting (CAI) consists of using technology to achieve better quality interpreting; secondly, remote interpreting (RI) refers to situations in which interpreters are not present during a meeting or when their services are needed; and thirdly, machine interpreting (MI) which involves software that interprets from spoken texts.

Throughout this paper, the focus will be on how technology can help human interpreters while learning or training, i.e. technology to assist humans, not to replace them.

2   Technology and interpreting-related technology

Having mentioned and explained the different interpreting-related technologies, we will now focus on the latest technological innovations that can affect the way we teach, learn, translate and interpret.

From an academic point of view, there has been a growing interest in technology and its impact on interpreting, which has led to a number of studies on this topic. An increasing number of authors are working in this field, including Sabine Braun, Marc Orlando, Annalisa Sandrelli.

The COVID-19 pandemic, which first appeared in China in December 2019 and rapidly spread to other countries around the world in 2020 (World Health Organization, 2023), changed our lives forever. The COVID-19 lockdown meant that we spent most of our time at home and the consequences soon became apparent: communication, the way we worked, and our leisure time changed. This increase in time spent at home was a starting point for the development of technology in many ways, above all in communication for personal and professional reasons. Digital platforms like Netflix, Prime Video, Disney Plus have brought us home cinema, while Uber Eats and many other companies have brought us restaurant food delivery.

The current trend is to buy quickly and easily online and from the comfort of our homes. There is no need to go out to be entertained or eat because we can do all this at home. As a result, the world has totally changed, and, thanks to technology, humans have adapted to coping with difficult situations.

Teleworking or telecommuting were terms we got used to during lockdown, but today, if teleworking is possible, many companies try to limit this to just one day or a few days a week. Working from home requires good equipment, a fast internet connection and the latest software. In the case of interpreters, most of us we were forced to work remotely (RI) or in-person, wearing a mask and keeping social distancing, but things were different for students of interpreting.

From a professional point of view, and in the same vein, Sabine Braun (2006) states that "many of the new forms of interpreting are characterized by the geographical separation of some or all of those who participate in the interpreted communicative event." She also adds that we need to distinguish between the two types of interpreting where technology is used, namely: "interpreting in communicative events in which the primary participants themselves are distributed over different locations" and "interpreting in communicative events in which the primary participants are together on site and only the interpreter works from a different location".

When we talk about interpreting using technological mediation, it is important to understand that this does not only apply to simultaneous interpreting. Marc Orlando (2010) proved that technology can also be used in consecutive interpreting. In this regard, he tried to improve the effectiveness of note-taking using technology, more specifically digital pen technology (the Livescribe Smartpen), "which offers the possibility to record and instantly replay the speech from what is written on the dot paper – with the option of speeding up or slowing down the audio playback – using the 3D recording earphones provided with such pens". This suggests a new type of hybrid interpreting, which he called "consecutive-simultaneous-interpretation-from-notes",

and refers to interpreting "the source speech both listening to the replayed speech and reading his/her notes". So, again, this study proves that technology applied to translation might lead to new possibilities and types of interpreting.

With regards our topic of interpreting-related technology in the classroom, we will now focus on Annalisa Sandrelli's study (2015) which also examines Computer Assisted Interpreter Training (CAIT). She argued that the main reason "why some interpreter trainers began to look at how computer technology could benefit interpreter training was the need to support the autonomous learning component of degree courses". This is because the interpreting learning process mainly requires autonomous training. That is also why we are presenting this study. Our aim is to make researchers and trainees aware of the importance of using CAIT as a complement and a companion in the learning process.

2.1 Interpreting-related technology in the classroom

During the COVID-19 lockdown, classes were given online. We can therefore ask ourselves the following question: can translation and interpreting be taught online? The answer is obviously no. Translating is an activity that students can do on their own once the task and how it works have been explained, but interpreting is about combining speaking and translating at the same time, i.e. translating out loud. The difficulties students face when they are taught online are greater than they are now. They generally worry about being seen and heard by others, not being understood, or making a mistake. General participation was rare. If we think about interpreting classes at university, during their first sessions, students are generally afraid to participate, but in the end, everyone joins in. The problem is for lecturers. Online interpreting classes are difficult to follow because the lecturer is not able to listen to each student at the same time. This is also the case with traditional interpreting classes in a classroom. That is why there is an urgent need for software that allows each student or interpreter to self-correct, whether or not there is a lecturer who is correcting them at the same time.

Table 1. Benefits of interpreting-related software as a lecturer's assistant in classroom.

| Number	Needs and benefits	Defining the software
1	**Students need to be heard**	The software would recognize the students' voices, record them and transcribe them into text, so that they could compare their results with the keys.
2	**Students need to be corrected**	Once students have finished their interpreting activity, they would be able to listen to their recording again and compare what they said with what the software gives as the key. This software would be able to load a video or audio in a particular lan-

		guage (with its transcript) and store the interpreted version (in another language also with its transcript). So, it would work in a similar way to software for subtitling/dubbing but with voice recognition.
3	**Students need to work on their own and practice more often**	The software would show a potential version of the interpreting activity (a speech, a conversation, etc.), while students work on their own. Later, they could ask the lecturer about any difficulties they encountered and discuss any problems they might have, e.g. a different version of a sentence, a word, an expression, etc.
4	**Lecturers need to be able to monitor students more accurately and on an individual basis**	The software would be a huge help in the classroom. Lecturers would be able to monitor all the students' work at the same time. Students would all be practicing at the same time and would not feel that they were wasting their time because the lecturer was not correcting them individually.

2.2 Interpreting-related technology as a self-directed lifelong learning method

Mastering a science or field of study takes more than three or four years of study. For this reason, people continue to research, read and improve their skills through lifelong learning. When we work on our own, we can often feel isolated, as was the case during the COVID-19 pandemic. The right software would help us to feel less isolated and supported academically. If we look at the apps market on our cellphones (App Store or others), we can get a quick overview of the many language learning, dictionary and automatic translator apps. The demand for online learning methods is growing due to their many advantages. These include the fact that they do not use paper and are therefore environmentally friendly; they are portable and can be taken with us wherever we go; they are compact and therefore practical, and they are more attractive to look at. We spend a lot of time on our digital devices, be they cellphones or tablets, and we are used to working on them. Moreover, they can be adapted to fit in with our daily lives as they are flexible and have no fixed schedules.

Typing 'interpreter' into our App Store search bar gave us the following results:

Table 2. Initial results for 'interpreter' in the App Store (iPhone and iPad apps).
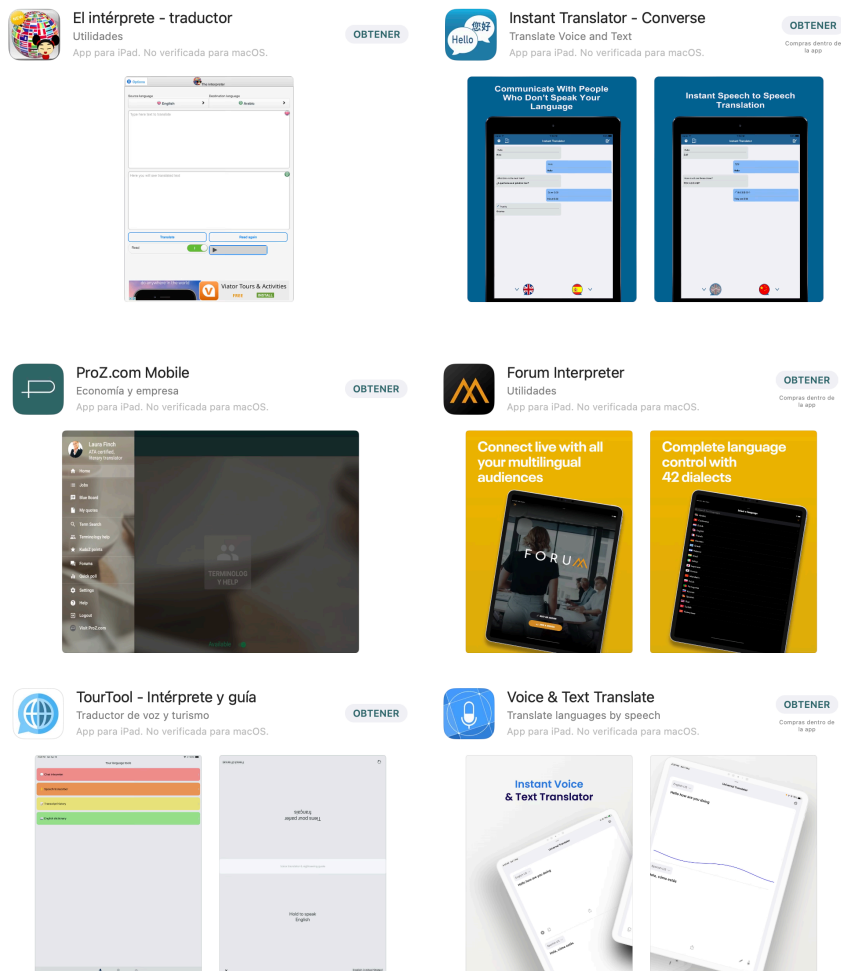
These results show us that interpreting is generally understood to be a voice translator. In other cases, these apps belong to specific companies which direct you to one of their staff. Although developers are improving their applications, human voices are still difficult to understand and the number of words they can listen to or translate is limited. So, these apps can be used as a speaking skill training tool to improve or learn a foreign language. This is also happening with digital voice assistants or conversational artificial intelligence (AI) like Alexa (Amazon), Siri (Apple) and others. They provide us with information and we give them orders, so they can be used as tools to better understand a language (listening skill) and improve in the pronunciation of it (speaking skill). There is still a long way to go if we compare these examples of conversational AI with natural language processing (NLP) tools like ChatGPT. This AI chatbot was developed by Open AI. You just need to log in and ask a question, and it can even translate a text of up to 2,200 words in a few seconds.

What worries many professionals in the education sector is that these types of tools are being used by students because they can quickly produce texts that sound quite natural. Moreover, they can give us a 'personal' opinion and it is difficult to detect when they are being used because the NLP tools are highly sophisticated and advanced.

Interpreters are sometimes hard to find as their services are often needed in sensitive situations such as those in hospitals, courts, prisons, etc.

3   Conclusions

Our research shows that there is still much work to be done in the development of new interpreting-related technologies, especially CAIT. Interpreters need software that can help them develop or improve their interpreting skills. A piece of software that can meet the needs of interpreters requires: a function to load, save and delete new/old oral speeches with their transcripts (ON/OFF subtitles); a function to record voices while interpreters are listening to the original speech; a function to mute the original/personal interpreted version/corrected interpreted version in order to compare the different versions; a function to stop/play/record/delete our interpreted version of a sentence, word, etc. The speeches that could be loaded and stored in our ideal software would be those that had been spoken in real life, and the corrected versions would be those produced by a lecturer or a professional interpreter. A program that fulfils these requirements would certainly be a great ally for the whole interpreting community, including lecturers, students of interpreting and interpreters. This interpreting-related software would work with our interpreting corpus which all lecturers and professional interpreters around the world would have access to and to which they could contribute with their own interpretations. As this would be a professional activity and offered publicly, the platform would officially give authorship and a code to the contribution.

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Remote interpreting: space travel and its terminological impact in Spanish, German, Arabic and Russian

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Abstract.
The current political situation and the increasing migration represent new challenges for translation and interpreting studies. The increasing spread of remote interpreting marks the work of professionals in terms of terminology management. The urgent care of refugees forces interpreters to seek strategies and become ad hoc terminologists. This paper describes the current situation and difficulties of emergency social care in the Spanish, German, Arabic and Russian languages and possible interpreting strategies to be adopted by professionals in the field. It highlights the need to develop an action protocol to improve terminological management and intercultural mediation in the field of emergency care for refugees.

Keywords: Remote interpreting, refugees, terminology management, interpretation, German, Arabic and Russian

1   Introduction

Given globalisation and increasing demographic change, accentuated by recent war events and poverty in the countries concerned, the number of refugees, international asylum seekers and migration in search of better jobs is on the rise. All this without considering the recent pandemic caused by COVID-19, which represents an additional aggravation of social inequalities. The European Union stands out for its high economic level and is open to solidarity, receives many migrants and devote a lot of resources to their integration.

In the light of recent events related to armed conflicts, starting with the war in Syria (2011) and continuing with the war in Ukraine (2022), Germany and Spain are attractive destinations for refugees, not only because of their proximity and existing trade and tourism relations, but also because they are the countries that best comply with the agreement and conditions of the Dublin Agreement to guarantee human rights. In addition, the measures taken by the German and Spanish public administration to help migrants include numerous reception offers, integration courses and the provision of translation and interpreting services in the refugees' mother tongue in order to improve reception, communication and coexistence. Remote interpreting is on the rise [Corpas & Gaber, 2021] and represents a resource that is easy to use and already

widespread, especially in the field of social interpreting [Hale, 2007] in public services. In this way, the public administration provides support to a migrant in a very effective way for his or her better defence and social inclusion. The 1948 UN Universal Declaration of Human Rights and its implementation show that overcoming the language barrier is the surest way to ensure the rights of each individual.

2 Remote interpreting and challenges of refugee care

As is well known, in order to carry out translation work, a translator and interpreter must have a perfect command of the source and target language, in this case Spanish, Russian, German and Arabic. However, the field of specialised translation, in our case legal or social translation for the public administration, is characterised by its specific terminology and requires an additional cognitive effort for a professional in interlinguistic communication. It should be added that, in order to transmit a message from one language to another, it is necessary to understand its content and/or context, otherwise it would be impossible to translate it effectively. Acquiring the knowledge necessary for effective communication proves to be difficult when it comes to specialised notions. Each term carries an intrinsic knowledge load, familiar to a professional in the specialist field, but often foreign to the translator or interpreter. Added to all these difficulties is the lack of time for the preparation of terminological glossaries and for documentation work in most cases. Therefore, the translator or interpreter must internalise even a minimum of knowledge in record time in order to be able to do his or her job effectively [Faber 2022]. This has happened with the mass migration to Spain of the Syrian population in the wake of the war and is currently happening with the huge flood of refugees fleeing the war in Ukraine. The EU had to work against the clock to develop new rules and legislation for the reception of refugees from this war in order to cope with the large number of people seeking Europe's protection.

Thanks to new technologies the remote interpreting (by telephone or videoconference), is now a standard part of an interpreter's work. This fact facilitates access to this type of resource. There are many institutions and private companies offering such a service, which saves a lot of costs and time (travel) and offers many advantages (unlimited 24/7 immediate availability, etc.) both for the company and for the worker himself (teleworking from home).

The high demand for public service interpreters [Corpas & Gaber, 2021] was also accentuated by the permanent and ad hoc refugee service, where the interlingual professional does not have the physical time to document himself or herself or to acquire the minimum of specialised knowledge necessary to use the appropriate terminology. Regardless of all this, remote interpreting in social emergencies is characterised by the fact that the remote interpreter hardly ever knows in advance what situation or subject matter he or she will encounter when taking a call. He or she must become an ad hoc specialist in the fields of medicine, social care, law, psychology, etc. and do his or her terminology work on the fly.

3   Terminology management in the refugee care

The context of remote interpreting changes the approach to terminology management. Thanks to new technologies, an interpreter can "travel" to the country where his or her services are needed. This has both advantages and difficulties. Recent political developments do not allow time to consolidate certain terminology in the target language of the migrant. In order to speed up communication and given the familiarity of the host country's own terms, it is no longer necessary to translate into Spanish, German, Russian or Arabic such words as: *asylum* (*asilo, Asyl, убежище,* اللجوء), *Red Cross* (*Cruz Roja, Rotes Kreuz, Красный крест,* الصليب الأحْمَر), *police* (*policía, Polizei, полиция,* شرطة), *City Council* (*Ayuntamiento, Stadtrat, мэрия,* المُحافَظَة), *international protection* (*protección internacional, internationaler Schutz, международная защита,* الحِمايَة الدَّوْليَّة), *protective administration for minors* (*protección del menor, Jugendamt,*

Ювенальная, служба, الحِمايَة الوِقائيّة لِلْقُصَّر),etc. This linguistic phenomenon forces interpreters to adopt new ad hoc strategies, as the translation of these terms can often be counterproductive, create confusions and hinder rather than speed up communication. This is language borrowing on the rise, which is becoming more and more common, and consists of the literal transfer of words from one language to another. However, the interlinguistic communication professional must ensure that the migrant knows what these foreign words mean to them and is not just using them blindly. The interpreter must recognise situations, where terms must be explained for their proper use.

To this end, translators and interpreters must devise their own emergency strategies that would help them in these cases. This involves finding a way of translating equivalents specific to this context either through the borrowing strategy, as mentioned above, or through the detailed or explanatory formula that describes the term itself from a functional point of view. For example, in cases of gender-based violence among the immigrant population to translate the term "the shelters" into the Arabic language it would be (بيوت مأوى مُؤَقَّت لِلحِمايَة في حالات العُنْف ضِدّ المَرأة),whichi in English

Means "temporary shelters in cases of violence against women". It is important to expand on the term "provisional" as, in many cases, it could cause conflict for the victims.

Also striking is the rapid integration of many Spanish or German words into the vocabulary of the refugees' mother tongue, which the interpreters used during the interpreting in social and everyday life. This made it easier for the interpreters themselves to work when the words were sounded out: *school* (*escuela, Schule, школа,* مَدْرَسَة), *kindergarten* (*guardería, Kita, Kindergarten, детский сад, ясли,* حَضانة), *after-school* (*extraescolares, Hort, продленка,* جَدْوَل الأنْشِطَة)، *appointment* (*cita Termin, прием,*ميعاد).

As can be seen, the terms that refugees integrate into their usual vocabulary in Spain or Germany correspond to the formalities, places or objects related to their reception. They are words in the language unknown to them whose full content is difficult to understand, which makes the search for their equivalent fail. To facilitate communication and in the knowledge that others involved will know these words (either their own compatriots or host country officials), they use them as they are. The use of these ad hoc linguistic borrowings is motivated by the need to communicate in order to attend to these first

important formalities: registration, accommodation, applying for social security or social assistance, registering with social security for medical care, steps of first necessity, such as finding schools or nurseries for children, signing up for language courses.

In this context, polylingual creatives are responsible for many of the catalysts that can influence languages and perceptions in the long term. Building on insights from the field of "bilingual creativity" or "bilinguals' creativity", formulated primarily by Braj Kachru [1985]. So, the literary creativity reflected in the novel will be approached with linguistic methods, such as those used since Kachru by Hoffer [2002], Carter [2004], Bolton [2010] and Rivlina [2015] to analyse advertising texts and literary publications in the English language.

The interpreter must be aware of these linguistic phenomena in order to be able to do his or her job well and to adopt appropriate translation strategies. In particular, it proved to be counterproductive to offer a translation of, for example, *City Hall, asylum, international protection, refuge* and some of the other linguistic borrowings listed above, as refugees did not know their exact translation, did not understand their exact meaning and used them as they heard them in the language of the host country. Any attempt to translate it only created confusion, although clarification was welcome. In this way, a special linguistic code was created for "insiders", requiring in-depth knowledge of the situation and mastery of the appropriate terminology.

But a remote interpreter in emergency situations must not only know the basic terminology involved in such procedures on a regular basis but must also provide intercultural knowledge in cases of misunderstandings [Hale 2010], also acting as an intercultural mediator [Marchioni 2019].

In the case of the Arabic language, there is much research that supports the close link between prior knowledge of extra-linguistic and contextual aspects and the success of the translation and interpreting process in general and that they require a great effort on the part of the professional in charge of linguistic mediation, in order to adapt the message to the receiver [Taibi, 2007; Boughaba, 2017; Qader, 2010]. This argument makes us reflect on the performance of Arabic interpreters in the remote mode since, among many other disadvantages, they are deprived of eye contact (in the case of telephone interpreting) and of the ability to physically or gesturally handle very complex situations (in the case of video-conference interpreting).

4   Conclusion

Thanks to new technologies, the remote interpreter has the possibility of acting in any country and knowing any specific scenario. After our study we can affirm that remote interpreting as a modern form of interpreting encourages and fosters new linguistic phenomena. This type of interpreting allows us to observe and study linguistic creativity and to see that the human mind knows no limits. Knowledge of the context, understanding and conveying the message as effectively as possible can be of vital importance. All this translates into the emergence of new interpreting strategies that need to be known and studied closely. This approach facilitates terminology management and the work of intercultural mediators.

This work could be useful for the elaboration of an action protocol guide for remote interpreting processes in order to improve the quality of the results of these processes in the four working languages: Spanish, Russian, German and Arabic. In this way, the challenges posed by remote interpreting [Corpas & Gaber, 2021] can be better met and the public service interpreters can offer a higher quality of service.

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Interacting Modalities in the Teletherapeutic Triad and Interpreter's Coping Tactics

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Abstract: The global spread of the COVID-19 Pandemic has given rise to remote cross-cultural psychotherapies (telethepraies), leading to the demand for interpreting services. This study explores the new momentum of relational pragmatics in remote psychotherapy settings, in which the traditional "language-context-interactant" dynamics shifts towards a "modalities-context-interactant" system. Interpreters should pay attention to the influences brought by various modalities, and adopt relevant coping tactics: (1) manage emotions; (2) avoid overlapped turn-taking; (3) mimic gestures and (4) retrieve paralinguistic information. These tactics help to foster a "modalities-context-interactant" ecosystem, promoting mutual trust in the setting, and helping to achieve a better therapeutic result. The study offers a multi-disciplinary perspective into the unique challenges in the psycho-therapeutic setting, and informs mental health interpreting practices and pedagogy.

Keywords: Relational Pragmatics; "Modalities-Context-Interactant"; Remote Psychotherapy; Coping Tactics of Interpreting.

1   Introduction

Amid the COVID-19 Pandemic, remote communication has become a key channel for interaction, and interpreters have faced new challenges: the distance between communicators, the use of technology, multimodal information, and others. Interpreters must produce "a first and final rendition in another language on the basis of a one-time presentation of an utterance in a source language" (Pöchhacker, 2022, p. 11), which burdens the interpreter's cognitive load. With the development of interpreting studies, it is generally accepted that interpreting involves not only language conversion, but also concerns modalities, medium, and culture (Kress & van Leeuwen, 2001). Interpreting, thus, is a cross-cultural multimodal communication.

In traditional cross-cultural psychotherapy, a therapist uses many nonverbal behaviours to guide clients to express their emotions (Zhan & Peng, 2017). Remote psychotherapy significantly differs from traditional face-to-face psychotherapy because participants are in different spaces (Liu & Wei, 2017). Therefore, interpreters must cope with the lack of nonverbal information in the setting. When there is a lack of dynamic elements such as body language and para-language, interpreters could find it hard to understand what has been said. In this case, interpreters must rely on various modalities

to constitute a context to foster the interaction. The study explores the interpreting workload caused by the new dynamic, describes the relationship of "interactants-mo-dalities-context" in the setting, and expounds interpreter's coping tactics and communicative effects by using cases.

2   Literature Review

Interpreting is a communicative behaviour that helps to bridge cross-cultural communication. Relational Pragmatics holds that there is an interactive relationship among interactants, language and context in the interpreting scenario (Kopytko, 1998; Mo, 2010). Only when interpreters grasp the dynamic transformation of the three pragmatic elements, can they better communicate all aspects of the cognitive process, and interpret between languages (Mo & Jiang, 2006). Therefore, relational pragmatics has been a topic for research for some scholars.

Recent research has focused on interpreters' communicative roles and behaviors, especially on how various modalities can influence interpreter's performance (Ouyang & Fu, 2020). Interpreters' role is arguably the most complex, because they need to provide language and cultural access as well as engage in the therapeutic process (Grant, 2009). Interpreters' coping tactics have a direct influence on the tri-party interaction. They can direct turn-taking, and even influence the direction and effect of communication by making "intentional, informed choices from a range of possibilities" (Roy, 2000, p. 39). Some scholars explore the views of medical personnel and doctors on the role of interpreters, and depict the communicative characteristics of interpreters based on discourse transcription analysis. They think that interpreters assume various roles, such as system agents, community agents, integration agents and linguistic agents (Leanza, 2005).

People rely on various information (semiotic and symbolic resources) to construct meaning during communication. The information ranges from images and videos to expressions and gestures, constituting multimodal communication. People express ideas and construct communicative settings in various modalities, each of which has its "rhetorical aspects for its communicative potentials" (Kress, 2009, p. 22). If two or more modalities are involved in communication activities, it is called multimodal communication. Scholars have explored the interaction between modality and Translation from many aspects, such as text, sound and music (van Leeuwen, 1999), movement and body language (Martinec, 2000), and so on. As studies on this topic develop, multi-modal methods are gradually applied to Interpreting Studies. Nowadays, Interpreting Studies is not limited to the communication achieved at the sound level, since it can only be heard, and not seen, smelled, touched or tasted (Kress & van Leeuwen, 2001, p. 67). Interpreting is both "multimodal (speech, non-verbal communication and so on) and multimedial (addresses the eye and the ear and potentially also touch, smell and taste)" (ibid). Studies pointed out that the lack of virtual presence is one of the major factors for poorer performance in remote as opposed to live simultaneous interpreting, and the reason could be that the remote simultaneous interpreter could experience "early onset of fatigue" (Moser-Mercer et al., 2005; Jesse et al., 2000).

3　　Analytical Framework

This paper combines the research of relational pragmatics, the "language-context-interactant" dynamics (Kopytko, 1998; Mo, 2010), and outlines the interaction model of "modalities-context-interactant" in remote psychotherapy interpreting.

First, the interplay of "interactant-modalities" makes explicit communication intention. As monolingual interactants, the Client and the Therapist have clear communicative intentions. In remote interpreting, it is necessary to use images, videos, and other modalities to help explain intentions. Therefore, the coping strategies that interpreters should adopt include: (1) Manage emotions. The interpreter should not only pay attention to the emotional changes of other monolingual communicators, but also control their own emotions, to the extent that these emotions can be passed forward to other parties of the setting, but the interpreter is not affected. (2) Avoid overlapped turn-taking. In case of a brief silence, the interpreter should not rush to interpret, but should observe the communication flow.

Secondly, the interplay of "modalities-context" helps to restore and enrich the understanding process. Communicators rely on a variety of modalities to construct a meaningful context. Body movements and paralanguage, as common modalities in communication, play an essential role in helping interpreters to construct and understand the context. It is necessary to fully convey modal, contextual, and linguistic information when interpreting. Therefore, the coping tactics that interpreters should adopt include: (3) Mimic gestures and (4) Retrieve paralinguistic information.

4　　Competing Modalities and Interpreter's Coping Strategies

4.1　　Manage emotions.

Based on the "modalities-context-interactant" interplay in remote psychotherapies, this article constructs a multimodal interpreting corpus of the remote psychotherapy supervision during the COVID-19 Pandemic, and analyzes how the interpreter adopts the coping strategies to promote interaction in the setting.

Case 1

T: Is it ok if I turn the camera a little bit, cause I like to face you a bit more.

I: 我想调整一下我的摄像头[2s]

C: 随便，随便[Confused]。

I: Sure. Sure.

T: What do you feel [......] [=]

I: [=] Do whatever you like.

I: Oh please go on.

When the Therapist and the Client first met, they were not familiar with each other, and the atmosphere was somewhat tense. Therefore, the Therapist tried to establish a connection with the Client (adjusting the camera, and gazing at the Client). The dialogue was simple and straightforward, but there were notable deficiencies in the interpretation. Firstly, there were obvious omissions. In the beginning, the Therapist meant

to adjust the camera to "face you a bit more", but the interpreter left out half of the sentence, which was why the Client felt confused, and caused the cognitive load on the interpreter. Secondly, there was overlapped dialogue, which happened because the former interaction was incomplete, and the interpreter wanted to supplement information, which resulted in interrupting the Therapist. When interrupted, the Therapist paused, frowned, and took a deep breath. The interpreter, knowing the interruption, felt more pressure, and there were more revisions and pauses. The reason for the above deficiencies was that during psychotherapies, the effects of interaction would be seen instantaneously in interactants' emotions, leading to mental stress and extra cognitive load. Interpreters know that "if the two sides cannot communicate effectively, both the process and result of the therapy will be compromised" (Wang, 2019). In this case, realizing that the Therapist was interrupted, the interpreter immediately supplements "please go on" to help the Therapist finish the dialogue.

4.2   Avoid overlapped turn-taking.

When the interpreter is involved in the therapy, the rhythm and turn of the interaction are changed, from a two-way dialogue to a three-party one. In remote psychotherapies, turn-taking differs from traditional face-to-face therapies, and the interaction in remote psychotherapies is not half as fluent as in traditional ones.

Case 2

T: Hmm... I think about [2s] from what I heard, and I believe there is theme
I kept hearing [2s]
I: 从你的讲述，我隐约听出一个主题。 **[To Therapist:Yes please]**
T: I kept hearing your curiosity about your life.
I: 就是对于你生命的好奇。
C: [4s]
C: 我不是太确定。
I: I am not sure. [对来访者]好你继续讲 **[To Client: You can continue]**

Silence and long pauses are common in psychotherapies (Lane et al., 2002), when the Therapist or the Client deals with what the other side has just said. However, interpreters are generally trained to avoid pauses (Tissi, 2000). Therefore, when interpreters encounter silence in the interaction, they tend to immediately start interpreting. In Case 2, the Therapist paused between sentences to attract the Client, but the interpreter mistaken silence as the end of the Therapist's turn, and interrupted--unintentionally--the silence, which was an atmosphere created by the Therapist. Realizing that, the interpreter took active measures to guide the communication (oh yes, continue; Yes please; OK you go ahead) in time to avoid or fix the overlapped turns. Turn-taking as a modality has been under-researched in the academia, but it will put extra cognitive load on interpreters in remote psychotherapies.

4.3   Mimic gestures

In face-to-face conversations, body language and gestures play an essential role in communication. Interactants show mutual respect and interest through gaze or gesture, thus

providing each other with a broader range of communication resources. Body movements and para-language, as common modalities in communication, play an important role in helping interpreters to construct and understand the context.

Case 3

T: **[Leans forward]** Can you tell me a little bit about that discomfort?

I: **[Leans forward]**你能讲讲是怎样的不舒服吗？

C: **[Looked down]**就是你的问题让我想很多，我不愿意想很多。

I: **[Looked down]** Your questions will lead to so many thoughts in my mind, and I do not like that. I feel pressure.

T: Pressure. [en]. Can you take a deep breath?

I: 如果觉得有压力，那你想不想试试深呼吸？

C: [Shakes his head]。

I: **[to Client]** 我看你摇头了，我理解你这是不想做深呼吸是吗？

I: **[to Therapist]** The Client shook his head, so I tried to confirm with him if this meant a refusal to try the deep breath.

Therapist might use physical movements to guide the Client and encourage them to express their emotions (Zhan & Peng, 2017). However, in remote psychotherapies, body language and emotions cannot be transmitted as effectively as in face-to-face settings. Thus, the interpreter may try to imitate the body movements of the Therapist and the Client. The imitation, on the one hand, can help the interpreter understand the nonverbal meaning contained in body movements; on the other hand, the interpreter can emphasize the body movements of the Therapist and/or the Client, so as to better convey nonverbal information and ultimately achieving better counselling results. Also, when the Client only shook his head to the Therapist's question, the interpreter needs to confirm the exact meaning before interpreting.

4.4   Retrieve para-linguistic information

Besides body language, para-language in communication (volume, intonation, speed, for example) also affects the communicative effect of psychotherapies. To make the Client more at ease, the Therapist may speak gently with a soft tone, and may stress some words to imply or induce the Client to dialogue. Therefore, in addition to conveying the literal meaning, the interpreter should also pay attention to paralinguistic information (volume, pitch, emphasis, for example), because this information may be crucial to successful therapies (Rudvin & Tomassini, 2011). For remote psychotherapies, besides the linguistic barriers, communication via video might also undermine the transmission of paralinguistic information. The most significant influence is that hesitation, embarrassment, repetition, gaze, and eye contact cannot be presented effectively, which interferes with the mutual understanding of the parties in the therapy.

Case 4

C: 我的老师让我来看心理医生，因为我和同学关系[很不好]。

I: My teacher asked me to come to a therapist, because I am in a **[bad]**relationship with my classmates.

C: [皱眉]他们每天晚上吵得我[睡不着觉]。

(Literal Translation: [Frown] They make noise every night that I **[can't sleep]**.)

I: They [=]

C: [=]我就想换一个宿舍，就想一个人住。

I: My roommates are so noisy, I just could not sleep well. I want to move out of [=]

C: [=]我都**[快疯了]**！

I: I want to move out of my dorm. They are driving me**[mad]!**

In Case 4, there were abundant paralinguistic features, implying important communicative information, and can direct the communicative effect between the Therapist and the Client. The interpreter should identify apparent paralinguistic features and reproduce them in the interpretation, so as to help the interactants understand the keys of each other's speeches (for example, when the Client stressed **[快疯了]**, the interpreter also emphasized **[mad]** in the rendering). Sound becomes the main source of information in remote psychotherapies. Interpreters should fully recognize tones, emphasis, and voices to infer the speaker's mental state.

5 Conclusion

This study depicts the dynamic interaction in the remote psychotherapy setting. Building upon the interpreting practice, the author analyzed the cognitive load caused by multimodal factors, and put forward coping tactics for interpreters in the "Interactant-Context-Modalities" interplay. It is found that in the remote psychotherapy setting, the interpreter is prone to the influence of interactants' emotions (such as tone and facial expressions), and the switch of turns. Body movements and paralanguage, as common modalities in communication, also play important roles in helping the interpreter to construct and understand the context. The interpreter in this setting should pay special attention to the context, and adopt certain skills to enhance mutual trust in the therapy, and reduce the Client's resistance. Moreover, the research depicts the setting of remote psychotherapies, and puts forward tactics for interpreters in such a setting. These tactics include: Manage emotions; Avoid overlapped turn-taking; Mimic gestures, and Retrieve paralinguistic information.

The spread of the COVID-19 Pandemic makes people more vulnerable to psychological problems. In addition, due to lockdown policies and other protective measures, remote cross-cultural psychotherapies might be a trend in the future, and thus the demand for psychotherapy interpreters might increase. This study offers a multi-disciplinary perspective into the unique challenges in the psycho-therapeutic setting, and constitutes a part of medical interpreting as a whole. The results can inform medical interpreting practices and pedagogy.

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