

SPEECH COMPRESSION TECHNIQUE (USING THE EXAMPLE OF THE ADDRESS OF THE PRESIDENT OF THE REPUBLIC OF UZBEKISTAN SH.M. MIRZIYOYEV AT THE 78TH SESSION OF THE UN)

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Annotation: This article explores the use of speech compression techniques to improve the efficiency and accuracy of real-time oral simultaneous translation systems. In this article give full analysis of the role of simultaneous translation in society and modern linguistics and its practical importance; various techniques and methods encountered during translation; the differences between written and oral translation; the factors causing the speech compression technique and giving them a linguistic analysis; description of the specific structural-semantic and grammatical internal structure of the units used in the translation process. The authors discuss various compression techniques and their impact on real context in the translation process. They also highlight the importance of maintaining high quality translation while compressing speech data for effective communication.

Key words: speech compression, simultaneous translation, techniques, real-time communication, language translation, efficiency, compression techniques, speech recognition.

Аннотация: В данной статье рассматривается использование методов сжатия речи для повышения эффективности и точности систем устного синхронного перевода в реальном времени. В статье дан полный анализ роли синхронного перевода в обществе и современной лингвистике и его практическое значение; различные приемы и методы, встречающиеся при переводе; различия между письменным и устным переводом; факторы, вызывающие прием сжатия речи и дающие им лингвистический анализ; описание конкретного структурно-семантического и грамматического внутреннего строения единиц, используемых в процессе перевода. Авторы обсуждают различные методы сжатия и их влияние на реальный контекст в процессе перевода. Они также подчеркивают важность поддержания высокого качества перевода при сжатии речевых данных для эффективного общения.

Ключевые слова: сжатие речи, синхронный перевод, методы, общение в реальном времени, языковой перевод, эффективность, методы сжатия, распознавание речи.

Annotatsiya: Ushbu maqola hozirgi vaqtda og'zaki simultaneous tarjima tizimlarining samaradorligi va aniqligini oshirish uchun nutqni ixchamlashtirish

usullaridan foydalanishni o'rganadi. Ushbu maqolada sinxron tarjimaning jamiyat va zamonaviy tilshunoslikdagi o'rni va amaliy ahamiyati to'liq tahlil qilinadi; tarjima jarayonida duch keladigan turli texnika va usullar; yozma va og'zaki tarjima o'rtasidagi farqlar; nutqni ixchamlashtirish texnikasini yuzaga keltiruvchi omillar va ularga lingvistik tahlil berish; tarjima jarayonida qo'llaniladigan birliklarning o'ziga xos tarkibiy-semantik va grammatik ichki tuzilishini tavsiflash. Mualliflar tarjima jarayonida turli xil siqish usullari va ularning real kontekstga ta'sirini muhokama qiladi. Ular, shuningdek, samarali muloqot qilish uchun nutq ma'lumotlarini ixchamlashtirish paytida yuqori sifatli tarjimini saqlash muhimligini ta'kidlaydilar.

Kalit so'zlar: nutqni ixchamlash, sinxron tarjima, texnikalar, real vaqtda aloqa, til tarjimasi, samaradorlik, ixchamlashtirish texnikasi, nutqni aniqlash.

Introduction. Simultaneous translation is defined by various authors as “the combination of a translator’s continuous perception of speech in one language with the reproduction of its meaning in another”¹ ; as “a type of activity of an interpreter, characterized by the pronunciation of the translation text in parallel with the sound of the source text”²; as “a form of complex human information processing, including the perception, accumulation, retrieval, transformation and transmission of verbal information”³ ; as “a type of monologue speech where the program is given from the outside”.⁴ However, in our opinion, the most complete definition can be considered by G.V. Chernov, who defined simultaneous translation as “a complex type of bilingual communicative-speech activity of oral translation, which is carried out simultaneously with the auditory perception of a one-time oral message presented, carried out under conditions of time shortage and strictly limited volume of processed information, the subject and product of which is semantic-semantic the structure of the processed speech message” .⁵

Mainpart. This part of the article presents an analysis of the text taken for study. The research material was taken from the live broadcast of the UN.WEB TV channel. The total length is 25 minutes and 9 seconds. The translation was made by UN.WEB TV translator. Since the format of the session does not provide for a specific algorithm that all participants must follow, preliminary preparation of simultaneous interpreters can only include familiarization with the topic of the upcoming event from open sources.

¹ Salomov G'. Tarjima nazariyasi asoslari. Toshkent “o'qituvchi” - 1983.

² G'ofurova G. O'zbekistonda tarjimaning rivojlanishi. Toshkent. 1973.

³ Гервер Д. Влияние шума на работу синхронных переводчиков: точность работы. ~ Acta Psychologica, 1974, том. 38

⁴ Leontyev A.A. Psycholinguistic units and the generation of speech utterances. M.: Nauka, 1969

⁵ Chernov G.V. Once again about the scheme for organizing simultaneous translation./ “Translator’s Notebooks”. - M.: International. Rel. 1977

Based on the recorded video of the live broadcast, we created a simultaneous interpretation transcript, which was thoroughly analyzed for the presence of compression.

It should also be noted that in the analysis of the material presented in this chapter, examples taken from the original were used. During the preparation of the transcript, the text was entered in strict compliance with the video and audio recording of the UN session, and therefore, the inaccuracies, cases of data loss, grammatical, syntactic, stylistic and other errors made by the translators are included in the text. Also, the examples presented in this article included written translations of the President's speeches posted on the official website of the Administration of the President of the Republic of Uzbekistan.

In the next section, the main factors affecting the implementation of the speech compression mechanism in simultaneous translation were analyzed.

After analyzing the material, we have identified the most common compression techniques that are specific to the work of simultaneous interpreters. *During our research, we proposed to analyze the types of speech compression techniques into the following groups:*

1. *Syllabic compression*
2. *lexical compression*
3. *syntactic compression*
4. *Semantic compression*
5. *Situational compression*

Syllabic compression: This technique involves condensing longer words or phrases into shorter, more concise forms. For example, "grandfather" could be compressed to "granny" to convey the same meaning in a more succinct manner. Syllabic compression, as described by Chernov,⁶ involves selecting words with fewer syllables than those in the source language to allow interpreters to speak more comfortably.

Original text	Written translation	Speech compression
Biz o'tgan yili umumiy xavfsizlik va taraqqiyotga qaratilgan "Samarqand birdamlik tashabbusi"ni ilgari surdik.	Last year we launched the "Samarkand Solidarity Initiative" aimed at common security and development.	We initiated the "SSI" last year focusing on shared security and development

⁶ Chernov, G. 1994. 'Message Redundancy and Message Anticipation in Simultaneous Interpreting'. In Lambert S. and Moser-Mercer B. (eds), Bridging the Gap: Empirical Research in Simultaneous Interpretation, Chapel Hill: John Benjamins Publishing Co., 141-p

However, this oversimplification of the simultaneous interpretation process overlooks the complexity of listening comprehension. While using shorter words may seem like a time-saving strategy, it may not necessarily be beneficial for interpreters on the receptive side of their work. Choosing concise words may not always be the most efficient approach, especially when interpreting between languages with shared roots that have similar word lengths. The practical implementation of syllabic compression raises questions about whether shorter words are consistently preferred over longer synonyms. This strategy may only become effective after extensive training when interpreters can automatically select shorter equivalents without conscious effort. Languages like English naturally tend to use fewer syllables, leading to shorter target language outputs compared to the source language. Despite language-specific characteristics, Chernov's study suggests that syllabic compression in simultaneous interpretation is not solely determined by the conciseness of the language. It may result from the rewording process, which can lead to more coherent and concise thoughts in the target language. Ultimately, it is essential to remember that syllables do not carry meaning on their own, and translation focuses on conveying meaning rather than word length.

Lexical compression - The second form of compression involves using fewer words to convey the same idea. Interpreters may use fewer words to convey the same idea or concept, simplifying the language while retaining the original message.

Original text	Speech compression	Written translation
Va bularning barchasi keng ko‘lamdagi keskinlik ortishiga sabab bo‘lmoqda.	All this is causing a huge increase in tension.	And all this is the cause of increasing tension on a large scale.

Original text	Written translation	Speech compression
Birlashgan Millatlar Tashkiloti Bosh kotibi tashabbusi bilan kelgusi yil Kelajak sammiti o‘tkazilishi xalqaro va mintaqaviy taraqqiyotning dolzarb muammolarini hal etishga, Tashkilotimizning ta’siri va	I am confident that holding a Summit of the Future next year at the initiative of the UN Secretary-General will serve to address the current challenges of international and regional development, increase the influence	I believe the Future Summit next year, proposed by the UN Secretary-General, will tackle current international and regional challenges, boosting the UN's impact.

samaradorligini yanada oshirishga xizmat qiladi, deb ishonaman.	and effectiveness of our Organization.	
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This technique helps streamline communication and ensures clarity for the audience. It is questionable whether such an approach could actually simplify the task of interpretation; if anything, it might make it more challenging.

Syntactic compression entails employing shorter or simpler constructions compared to those in the source language. By using simpler and shorter sentence structures, interpreters can convey complex ideas more efficiently. This technique involves rephrasing sentences to make them easier to understand without losing the essence of the original message.

Original text	Written translation	Speech compression
Birlashgan Millatlar Tashkiloti Bosh Assambleyasining bugungi sessiyasi xalqaro munosabatlar tizimida fundamental o'zgarishlar yuz berayotgan bir sharoitda bo'lib o'tmoqda.	Today's session of the United Nations General Assembly is taking place in the context of fundamental changes in the system of international relations.	This UN General Assembly is amidst major shifts in the international relations system

This can be achieved by, for example, breaking down a complex sentence into several simpler ones, a method commonly used in simultaneous interpretation known as *saucissonnage in French* or the *salami technique in English*. Syntactic compression occurs when opting for a shorter and simpler construction than the original one, such as a) dividing a complex sentence with intricate clause structures into multiple simple sentences b) substituting a prepositional phrase for a participial construction c) replacing a word combination with a single word, or an abbreviation for the full name of a country or organization.

Original text	Written translation	Speech compression
O'zbekiston tarixida birinchi marta umumxalq referendumi bo'lib o'tdi. Referendumda	This year, Uzbekistan held its first-ever nationwide referendum on the reformed Constitution, backed	More than 90 percent of the voters in the

ovoz berganlarning 90 foizdan ziyodi ushbu chinakam xalq Konstitutsiyasini qo‘llab-quvvatladi.	by over 90% of voters, solidifying our irreversible reform path.	referendum supported this truly popular Constitution
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Semantic compression, like lexical compression, shares similarities and is subject to similar critiques. This technique involves condensing information while preserving the core meaning of the message. Interpreters may prioritize key points and essential details to convey the intended message accurately in a more concise form.

Original text	Written translation	Speech compression
Hatto iqlim o‘zgarishlari, ochlik va tengsizlikka qarshi kurash singari butun bashariyat taqdiriga daxldor bo‘lgan masalalarda ham o‘zaro muloqot izdan chiqqani sezilmoqda.	Even on issues that concern the fate of humanity as a whole, such as climate change, hunger and inequality, one can feel that mutual communication has been lost.	Even critical global concerns like climate change, hunger, and inequality suffer from a breakdown in communication.

Original text	Written translation	Speech compression
Aholini ichimlik suvi, sog‘liqni saqlash, ta’lim va boshqa ijtimoiy xizmatlar bilan ta’minlash ko‘lamini bir necha bor oshirishni belgilaganmiz.	We intend to increase by several times the scale of water supply, healthcare, education and other social services to population.	We aim to significantly enhance water, healthcare, education, and other social services for our people.

Original text	Written translation	Speech compression
Biz Birlashgan Millatlar Tashkiloti Bosh kotibi tomonidan ilgari surilgan “Ish o‘rinlarini yaratish va ijtimoiy himoya global	We back the UN Secretary-General's initiative Global Accelerator on Jobs and Social Protection. To facilitate sharing	In order to share best practices within the framework of this initiative, we propose to hold in 2024 in our country the World

<p>akseleratori” borasidagi tashabbusni qo‘llab-quvvatlaymiz. Mazkur tashabbus doirasida tajriba almashish uchun 2024-yili Birlashgan Millatlar Tashkiloti shafeligida “Ijtimoiy himoya: barqaror taraqqiyot sari yo‘l” butunjahon konferensiyasini yurtimizda o‘tkazishni taklif etaman</p>	<p>best practices in this initiative, we suggest hosting the World Conference “Social Protection: Path to Development” in our country in 2024 under the UN's auspices</p>	<p>Conference “Social Protection: the Path towards Development” under the auspices of the United Nations.</p>
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Situational compression involves condensing speech chunks by relying on the contextual information surrounding the communication. Situational context plays a crucial role in communication, and interpreters often rely on contextual cues to condense speech effectively. By understanding the situational dynamics of the communication, interpreters can adapt their translation to suit the specific context, ensuring that the message is conveyed accurately and efficiently. This strategy, as described by Shiryayev and cited in Chernov's work,⁷ is considered highly flexible due to its reliance on context.

Original text	Written translation	Speech compression
<p>Birlashgan Millatlar Tashkiloti Bosh Assambleyasining bugungi sessiyasi xalqaro munosabatlar tizimida fundamental o‘zgarishlar yuz berayotgan bir sharoitda bo‘lib o‘tmoqda.</p>	<p>Today’s session of the United Nations General Assembly is taking place in the context of fundamental changes in the system of international relations.</p>	<p>This Assembly is amidst major shifts in the international relations system</p>

⁷ Goldman-Eisler, F. 1951. "The measurement of time sequences in conversational behaviour". In British Journal of Psychology. Gen. Sec. 42, 358p

An illustrative example often referenced in discussions of situational compression is the interpretation of a statement from a UN meeting where the phrase "I now give the floor to the distinguished delegate of the Souveren Republic of Uzbekistan" was condensed to simply "Uzbekistan" in the target (English) language. In this instance, the interpreter likely deemed it unnecessary to include all the situational details from the original utterance, assuming that the delegates present would already be aware that Uzbekistan had a representative, was a "Souveren Republic," all delegates were considered "independent," and that the chairperson was providing the floor at that moment. The listeners were expected to fill in these contextual gaps left by the interpreter.

In conclusion, the role of simultaneous translation in society and modern linguistics emerges as a crucial element with practical significance, bridging communication gaps across languages. Extensive research into the diverse techniques and methods employed in translation has unveiled a nuanced understanding of this intricate process. The distinctions between written and oral translation have been meticulously examined, shedding light on the nuances and challenges inherent in each form. Moreover, the investigation into speech compression techniques has culminated in a comprehensive consolidation of research findings. By identifying the factors influencing speech compression and subjecting them to linguistic analysis, a deeper comprehension of the underlying mechanisms at play has been achieved. This analysis not only enhances our grasp of the translation process but also underscores the profound impact of linguistic structures and semantics on effective communication.

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