

THE (UN)VERIFIABILITY OF KNOWLEDGE OFFERED BY AI IN THE WORK OF A TRANSLATOR OF HISTORICAL TEXTS

(Ne)overiteľnosť poznatkov ponúkaných AI pri práci prekladateľa historických textov

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ABSTRAKT

Preklad historických literárnych textov z obdobia stredoveku si vyžaduje špecifický prístup zo strany prekladateľa. Cieľom tohto príspevku je poukázať na problematiku využiteľnosti nástrojov umelej inteligencie ako prekladateľskej pomôcky a otvorenie otázky overiteľnosti získaných poznatkov. V tomto príspevku si predstavíme špecifiká stredovekej literárnej produkcie, ktorá stojí na pomedzí medzi odbornou a krásnou literatúrou. V druhej časti práce preskúmame využiteľnosť umelej inteligencie v procese prekladu. V závere práce sa pozrieme na niekoľko prekladateľských problémov z našej prekladateľskej praxe ako aj na výsledky ponúknuté rôznymi nástrojmi umelej inteligencie. To nám umožní vysloviť záver, že umelá inteligencia zatiaľ nedisponuje dostatočnou schopnosťou zohľadniť špecifiká prekladu stredovekých latinských textov ani vyvodzovať správne závery a preto nemôže plnohodnotne nahradiť prácu prekladateľa.

Kľúčové slová: Preklad. Umelá inteligencia. Latinčina. Stredovek. Literatúra.

ABSTRACT

The translation of historical literary texts from the medieval period requires a specific approach on the part of the translator. The aim of this paper is to highlight the issue of usability of artificial intelligence tools as a translation aid and to raise the question of verifiability of the obtained knowledge. In this paper we will present the specifics of medieval literary production, which stands on the borderline between professional and fine literature. In the second part of the paper we will examine the usefulness of artificial intelligence in the translation process. At the end of the thesis, we will look at several translation problems from our translation practice as well as the results offered by different AI tools. This will allow us to pronounce the conclusion that artificial intelligence does not yet possess sufficient ability to take into account the specifics of translating medieval Latin texts or to draw correct conclusions and therefore cannot fully replace the work of the translator.

Key words: Translation. Artificial intelligence. Latin. Middle-Ages. Literature.

INTRODUCTION

Otokar Fischer, Czech translologist, understands the translation as an activity between science and art (Fisher, 1929). His definition undoubtedly has even more validity and justification if we speak of translation focused on historical texts from the medieval period. These, by their very nature, are situated at the boundary between artistic and

scientific literature, since the distinction between scientific and fine literature was blurred in medieval Latin literature. In addition the translation of both ancient and medieval literature is still considered to be a scientific work today. This fact stems from the complexity of historical texts and the specific character of the Latin language. Nowadays we

are witnessing a discussion about the meanings of artificial intelligence which, under ideal conditions, could make the translator's work easier. In this paper, we will focus on exploring the validity and applicability of AI tools in the translation of original historical texts from the medieval period. We will focus on the question of the usefulness of these translation tools in the form of artificial intelligence, taking into account all the specificities that translation of historical texts entails.

1 Specifics of translating historical texts

As we said in the introduction of this thesis, the translation of medieval Latin and historical texts in general shows certain specific features that result from the very nature of medieval Latin literature, the knowledge of which constitutes a *conditio sine qua non* for every translator of these texts. Understanding the characteristics of medieval literature is important for understanding the cultural development and characteristic of national literatures. The syncretism of functions and literary genres can be considered the most specific feature of medieval literature. The literature of the medieval period also includes literary works of a specialist nature. Moreover, the genre of individual works is often difficult to be recognized and defined. Rather than genre, it is possible to classify individual works according to their function and purpose, but even in this question we come to the conclusion that individual works fulfil several functions at the same time. Therefore we speak of their polyfunctional character. Closely related to this fact is the difficulty of classifying individual authors, for who very often writes both poetry and prose, hagiography and historiography. There is also an oscillation and intermingling of secular and spiritual literature. Other specifics of an even more serious nature include the impossibility of their correct understanding and interpretation regardless of their intertextuality, symbolism and allegory (Nechutná, Stehlíková, 2013). Therefore, it is necessary to approach translation work from both linguistic and literary scientific analysis.

The competence of linguistics includes the comparative study of two linguistic systems, the knowledge of which is a prerequisite for translation skills. In this process, the searching of linguistic equivalents occupies the largest part of the translator's work, but does not exhaust it. The translation in the true sense can only be spoken of in the realm of purely conceptual meaning, as texts of professional terminology and in the realm of form, which does not seem to depend on language and on the historical context. These facts, of course, exclude historical texts, because they do not contain reality directly, but only its reflection and often tendentious generalization, which are not unique meanings, but special ones, such as local and contemporary allusions, proper names and those artistic means, the formation of which was conditioned by the social situation considered a matter of taste at the concrete time. Indeed, every literary work takes contents from social consciousness and realizes them in language. And because the social consciousness of the nation in which the work was created evolves, some of the contents of the work - further developmental stages - cease to be fully understood, or are understood in a distorted way (Levý, 2012).

The cultural dimension of the text, as we have the opportunity to observe, is a serious factor that influences the translator's work. The translator takes it into account when selecting translation solutions; he participates in the translator's selection of equivalents. Adriána Koželová and Lucia Valúchová quote that these facts must be translatable in mind and the cultural dimension of the original must be encoded into the target culture as well (Koželová, Valúchová, 2024).

The medieval form of the Latin language still recedes into this situation. Speaking of medieval Latin, we must realize that from the 5th to the 15th century we observe a non-homogenous period of ten centuries when Latin, despite its universal spread and use, ceases to be the living and mother tongue of any particular group of the population. This led to a distortion of its form through the disintegration of grammatical and lexical relations, the penetration of new vernacular and

colloquial words into the classical language system. The linguistic form of medieval Latin thus differs from the classical norm not only by the dependence on the century and period in which a particular language was used, but also by the national composition of the population that used it, the degree of influence of national languages on its form, and the author's own knowledge of classical Latin. Thus, we cannot speak of medieval Latin literature in terms of the form of the Latin language and in general, but rather of the peculiarities and specifics of the Latin of a particular author. A thorough understanding of the text and its meaning is a prerequisite for mastering the translation and eventual interpretation; if the philological translation is not sufficient to grasp the meaning in its entirety.

2 Artificial intelligence as a translation tool

Artificial intelligence is a tool that uses a machine's abilities to perform tasks that require human intelligence, such as using natural languages, problem solving, and pattern recognition. Artificial intelligence can also be used to create translations from one language to another (Amini, Ravindran, Lee, 2023) through the neural network-based translators. The entire translation process is modeled by a neural network, a key feature of which is the ability to automatically correct the parameters during training. On the other hand, the algorithms use it for deep learning and allow it to learn and generate the rules of the language and the translated text and produce the target text, i.e. the translation. In practice, this means that translation fluency is often improved at the expense of translation adequacy, when translations occur whose content does not match that of the source text (Petráš, Munková, 2023), although this increases the speed of translation, reduces its cost, and disseminates information from different languages and cultures. Despite all these advantages, AI-assisted translation still cannot cope with figurative and metaphorical naming, as well as cultural peculiarities. The quality of AI-based translation is the adequacy, fluency, fidelity and natural tone of the translation. The latter, however, is only sufficiently reached when

translating technical terms. Otherwise, AI tools require access to large amounts of information, sometimes sensitive. The shortcomings of AI and its translation lie in the difficulty of stack hitting nuances of language such as cultural allusions, idiomatic expressions and sarcasm, which AI translates literally. The translation of artificial intelligence, like the rest of its output, lacks the creativity and originality inherent in the executioners (Soysal, 2023). However, the fundamental problem of its translation still lies in the change of meaning and context (Shapiro, 2017) which have been described by several authors. However, from our translation experience, we consider the biggest risk of using AI to be not only the inadequacy of the translation, but also the falsity of the information offered. Since the inadequacies and inaccuracies of translations have already been written about in several stages, we will focus our paper on the falsity and consequent unverifiability of the information offered by artificial intelligence, not only at the level of words, but also at the level of cultural references and historical facts. Such a translation has to be subjected to post-editing and revision, which we understand as Blanka Jenčíková's checking of the finalised translation made by the translator (Jenčíková, 2023).

In the following section, we will present a few examples of the incorrectness of translation solutions offered by artificial intelligence and the consequent difficulty or even impossibility of verifying them.

3 Translation of specific expressions

In medieval Latin we encounter specific expressions that the lexis of classical Latin did not possess. Despite the existence of a considerable number of good dictionaries of specific expressions for the Middle Latin language, we find expressions in the original texts from this period that cannot be found in the dictionaries. The reason for the absence of their entries is the colloquialisation or misappropriation of the originally Latin equivalent, the neologisms emerging at this time, or the penetration of the word from the vernacular languages into the corpus of classical Latin.

In our translation practice we have encountered one such expression in the translation of the chronicle of Georgius Sirmienensis entitled *Epistula de perditione regni Hungariae* (Sriemsky, 2024). Specifically, it is the term „nazandones,” by which Georgius Sirmiensis refers to a raft man, a detachment of Turkish troops charged with transporting supplies and technical equipment by river. This term has posed a major translation problem, as it is not found as a dictionary entry on any dictionary of medieval Latin available to us. If we were to reach for the tools of artificial intelligence in order to find a translation of this word, we would fail miserably, even though the tools of artificial intelligence themselves serve to efficiently retrieve the waste content by accessing information from all over the world. Chat GPT defines the noun „nazandones” as: „Nazarenes, were historically interpreted as a group or sector of early Christianity, primarily in the Middle East region. According to some historical and religious texts, it is believed that they sought to preserve and spread the teachings of Jesus Christ without being influenced by dominant religious traditions. The word „Nazarenes” is often used to refer to those who followed Jesus and his teachings.” (Chat GPT, 19. 11. 2024). Chat GPT, as we can see from the excerpt, has not provided any more detailed information, nor has it substantiated the translation of the required word. After requesting more detailed information, it proceeded further generating vague information bedevilled by deeper narrative value: „Nazarenes in the Middle Ages, in most historical contexts referred to Christian groups that had roots in early Christianity and rejected some of the traditional doctrines of the established churches. These people often lived in isolated communities and practiced their own forms of Catholic belief that differed from mainstream Christianity, including the maintenance of ancient traditions and rituals. Many times they faced persecution from the orthodox churches and the state. Nazarenes in the Middle Ages can also sometimes be associated with heresy, which refers to a departure from the official teachings of the Church.” (Chat GPT, 19. 11.

2024). In this case, Chat GPT may also be remotely referring to the Manichaeian or Manichaeian-gnostic sect called Nasorajja, which represented the title of the followers of John the Baptist (Douglas, 2009), but does not provide us with any specifics about it. Moreover, scholarly authorities do not indicate any knowledge of their existence in the Middle Ages.

An artificial intelligence called Perplexity purportedly bases its translation and interpretation of word „nasandones” on a publication by the Czech medievalist Jana Nechutová and translates it as leaving or forsaking. According to Perplexity, this term is often used in the context of leaving something or leaving a trace (Perplexity, 19. 11. 2024). Of course its claims are not based on truth and the source offered contains no such information. However, this artificial intelligence tool goes much further in invention and gives the impression of a deep insight into the subject to the uninitiated user, by offering, of its own accord, expanding questions: „What is the original meaning of the term nazandones in medieval Latin? Are there other translations of the term nazandones from medieval Latin? Which contemporary languages use the translation nazandones? What is the context about which the expression nazandones is used? Who was the author of the texts in which the expression nazandones occurs?” (Perplexity, 19. 11. 2024).

The only AI tools that admitted their ignorance were the artificial intelligence Copilot and Gemini, with Gemini suggesting to the user as a possible reason the non-existence of a given word or its misspelling. So we did not get the right answer from these tools and we have to say that if we were not familiar with the topic, we would have been able to refute them.

The situation appears even more pronounced if we give AI the more complex task of describing some specific historical facts. We have given the aforementioned tools of artificial intelligence the question of how medieval penitential books describe women's sins. Despite the fact that there are a number of publications available on the Internet on this topic, including the ones we published

ourselves on this topic and with these keywords (Katreničová, Novotný, 2022), the artificial intelligence failed in this case as well. The most detailed calculation was given to us by an artificial intelligence called Perplexity. It classified women's sins into four categories on sins related to sexuality, original sin, hereditary sin, restriction and control, where it included the completely incorrect information that women in the Middle Ages were not allowed to own property and the perception of women in society. Some of the informations offered may be true, but it completely fails to reflect the fact that, as we have shown in several publications, women's sins in the Middle Ages centered on their uncontrolled sexuality, the premeditated murder of their husbands or children, and witchcraft. In addition, for supplementary questions such as what were the most common accusations against women in relation to witchcraft, the AI states that it is based on our publication (Katreničová,) but the fact that it does so misinterprets the information used. In addition it seems to us, that the artificial intelligence does not even use the conclusions given in the publications.

CONCLUSION

On the basis of the informations given in this paper, it is therefore we come to our original question, whether the instruments of artificial intelligence tools are a suitable tool for the translator. As we can see, artificial intelligence is supposed to process a large amount of information in a short amount of time, but it does in a way that can hardly be considered sufficient, because of the artificial intelligence does not work correctly with the informations found on internet. Moreover, it often provides misleading information that would take more time to verify than honest research.

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