



Translation of modern German realities using DeepL

Svitlana Amelina*

Doctor of Pedagogy, Professor

National University of Life and Environmental Sciences of Ukraine

03041, 15 Heroiv Oborony Str., Kyiv, Ukraine

<http://orcid.org/0000-0002-6008-3122>

Rostyslav Tarasenko

Doctor of Pedagogy, Professor

National University of Life and Environmental Sciences of Ukraine

03041, 15 Heroiv Oborony Str., Kyiv, Ukraine

<https://orcid.org/0000-0001-6258-2921>

Liyng Shen

Doctor of Philosophy in Pedagogy

Anhui International Studies University

1366, Qianjiang Rd., Hangzhou, China

<https://orcid.org/0000-0001-7421-2899>

Abstract. The relevance of this research lies in the increasing role of machine and automatic translation systems and their potential use as auxiliary tools for translators. This study aimed to explore the capabilities of the DeepL translation system in rendering the realities of contemporary German language into Ukrainian. A variety of research methods were employed, including analysis and synthesis, comparative and descriptive approaches, and generalisation. The findings revealed that the accuracy of translating realities using the DeepL system varies across thematic groups. The distribution of thematic groups, along with the number and proportion of accurately translated realities, is summarised in the accompanying tables. The highest accuracy was observed in the thematic group “Geographical Names”, while the lowest (zero) was found in the group “Ironic Everyday Realities”. The study determined that the most successful translations occurred with complex nouns (composites) when their meanings directly corresponded to the combined meanings of their components. Conversely, translation results were unsatisfactory when the meanings deviated from this direct correspondence. Abbreviations were left untranslated,

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*Corresponding author



requiring the translator to rely on background knowledge or conduct additional reference searches for accurate interpretation. Some accurate translations of realities were found in the DeepL system as transliterated matches. In certain cases, generalised versions of matches proved successful. However, realities from the past three years, despite being widely distributed across the Federal Republic of Germany, were translated incorrectly. For these, a descriptive translation approach is recommended. The results of this study can be utilised by translators to enhance the accuracy of translating texts containing cultural and linguistic realities

Keywords: machine translation; thematic groups; machine translation systems; German-language realities; adequate translation

Introduction

The relevance of this research stems from the growing need to enhance the efficiency of the translation process while maintaining its adequacy. This need is driven by the increasing volume of materials requiring translation to facilitate cooperation with foreign partners. The significance of the research is further underscored by Ukraine's ongoing integration into the European Union, which will necessitate the translation of numerous documents, regulations, directives, standards, and agreements. Machine translation systems, which can significantly accelerate the translation process, have seen a surge in interest over the past three years. However, questions remain regarding the effectiveness of these systems, particularly in light of the lexical nuances of different languages, the prevalence of specialised terminology, and the challenges posed by realia words. Since realia often present notable difficulties for translators, this study seeks to evaluate the suitability of the DeepL system for translating German-language realia into Ukrainian.

The increasing interest in using machine translation systems for texts across various domains can be attributed, in part, to their ability to enable specialists without foreign language proficiency to comprehend such texts. Researchers highlight the importance of these systems, especially for understanding scientific and technical texts (Kostikova *et*

al., 2019). A. Olkhovska & M. Lavrenova (2021) explored the potential for achieving high-quality translations of legal texts through machine translation systems, while N. Sopylyuk & I. Tsarenko (2019) conducted similar research on economic texts. The importance of these systems for translating legal and economic texts is also emphasized by foreign researchers (Mediavilla, 2024). In addition, G. Veselovska & S. Radetska (2021), along with B. Banitz (2020), proposed classifications of machine translation systems. The study of machine translation techniques has also been a subject of interest (Ryabova, 2024). Researchers have further addressed the significance of incorporating machine translation systems into the training of translators specializing in scientific and technical texts (Shilinska & Kuziv, 2022).

Researchers have identified various machine translation systems, including Google Translate, DeepL Translator, ModernMT, Apertium, and Trident, raising the question of whether these tools can fundamentally transform the work of translators (Pym & Torres-Simón, 2021). However, scholars like B. Rodríguez de Céspedes (2019) argue for integrating the study of these systems into translator training programmes. In recent years, publications focusing on the DeepL automatic translation system have begun to emerge, primarily authored by foreign researchers (Berger, 2018; Wyndham, 2021; Wang *et al.*, 2022).

Chinese researchers have examined the stability of systems like Google Translate (Lee *et al.*, 2020) and DeepL (Li *et al.*, 2023), highlighting the ability of neural network-based translation systems to self-learn and self-improve (Sun *et al.*, 2020). Nonetheless, the use of DeepL remains insufficiently explored, particularly concerning its effectiveness in translating the German-Ukrainian language pair, which calls for further research.

The classification and translation of realities occupy a prominent place in academic studies. Ya. Mukataeva (2022) identifies various types of modern German realities, including geographical (*geographische*), ethnographic (*ethnographische*), everyday (*Alltagsrealia*), historical (*historische*), social (*gesellschaftliche*), political (*politische*), military (*militärische*), architectural (*architektonische*), and religious (*religiöse*). Mukataeva asserts that *realia* words, as a distinct category of non-equivalent vocabulary, are particularly effective in conveying one nation's culture to another. Similarly, I. Kabachenko & I. Malashevskaya (2024) discuss the challenges of translating German realities, emphasising the need for a combination of linguistic and cultural competence, attention to semantic and cultural nuances, and the use of various resources to achieve accurate translations. A specific subset of realities is the so-called *lacunae*, which present unique translation challenges. Despite the growing body of literature on these topics, no prior research has investigated the use of the DeepL system for translating German-language realities.

This study aimed to assess the effectiveness of the DeepL system in translating German-language realities, categorised by thematic groups, into Ukrainian. The research tasks included collecting factual material, conducting an experimental evaluation of translations performed by the DeepL system, and determining its suitability for translating German realities into Ukrainian.

Materials and Methods

To achieve the goal, the following methods were used: the method of analysis and synthesis (for analysing factual material), comparative (for comparative analysis of counterparts in the language pair “German-Ukrainian”), descriptive (for explaining the results obtained), and generalisation (for formulating conclusions). The study was conducted on the basis of materials, the sources of which were the online publications Fokus Online, n-tv, Spiegel Online, Welt Online, and Sueddeutsche. The selection of realities was carried out using the method of continuous sampling from the texts of these online publications. Moreover, the topics of the texts varied, ranging from news reports to popular science articles. Based on the use of the methods of analysis and synthesis to process the collected factual material, the realities selected from the texts of online publications were grouped into 14 thematic groups, which differed in quantitative content: “Food and Drinks”, “Clothing”, “Housing”, “Life”, “Transport”, “Shops and Restaurants”, “Traditions and Customs”, “Geographical Names”, “Social Realities”, “Political Realities”, “Institutions and Establishments”, “Linguistics”, “Mythical Creatures/Fairy-tale Characters”, and “Ironic Everyday Realities”. The translation of the realities selected from the texts of the above-mentioned online publications was carried out using the DeepL system. Using the comparative method, the words-realities from the source texts were compared with the counterparts available in the DeepL system.

The comparative method enabled the determination of how closely the counterpart proposed by the DeepL system matched the meaning of the word-reality. Subsequently, conclusions were drawn for each specific reality about the possibility or impossibility of its translation from German into Ukrainian using the DeepL system. In cases where multiple equivalent variants were offered, the analysis method was applied to identify the most suc-

successful option in terms of adequately reproducing the concept’s content in the target language. Based on the analysis of the translation variants available in the DeepL system, the proportion of adequately translated realities was determined. Using the descriptive method, a detailed explanation of the results obtained during the translation of realities with the DeepL system was provided. The generalisation method was employed to visualise the results in two tables. These tables presented the distribution of all factual material – i.e., realities selected from online publications – by thematic groups, as well as the number and proportion of adequately translated realities for each thematic group relative to the total number of realities in

that group. The generalisation method was also applied to identify patterns in the translation of realities across the thematic groups using the DeepL system, both within individual groups and collectively. Additionally, generalisation was used to formulate the overall conclusions of the study and to identify prospects for further scientific exploration of the research topic.

Results and Discussion

The study was based on the understanding of realities as words and expressions used to denote objects, phenomena, and concepts unique to a particular culture. Considering the diverse range of realia types, the collected examples were organised into thematic groups (Table 1).

Table 1. Distribution of realities by thematic groups

| Thematic group | Number of examples |
|--|--------------------|
| Food and drinks | 34 |
| Clothing | 8 |
| Housing | 7 |
| Life | 11 |
| Transport | 14 |
| Shops and Restaurants | 9 |
| Traditions and Customs | 12 |
| Geographical Names | 24 |
| Social Realities | 14 |
| Political Realities | 11 |
| Institutions and Establishments | 8 |
| Linguistics | 5 |
| Mythical Creatures/Fairy-tale Characters | 10 |
| Ironic Everyday Realities | 12 |

Source: developed by the authors based on research conducted

After analysing the results obtained and illustrating them with some examples, it was found that most often the realities belong to the everyday life of speakers of a certain language and culture. Such words denote dishes, drinks, clothes, housing, transport, other household items and objects, as well as traditions and customs. In the thematic group “Food and Drinks”, the vast majority of words were translated correctly, but with varying degrees of accuracy. For example, *die Schweinehaxe* –

pork knuckle, *das Eisbein* – pork knuckle, *der Apfelwein* – cider, *die Limo* – lemonade, *der Lebkuchen* – gingerbread. It is worth noting that the word *das Eisbein* is mostly used in the north of Germany, and in general, *die Schweinehaxe* is more common in the territory of Germany. Nevertheless, the translation was carried out correctly. As for *der Lebkuchen*, the translation is also correct, but it is not an ordinary gingerbread. First of all, it is associated with the Christmas holidays, although now it

can be purchased at any time. For some names of dishes in the DeepL system, there are several translation options, which are either partially correct or generalised equivalents. Comparison: *der Eintopf* – stew, stew, soup, *die/das Brezel* – pretzel, bagel, gingerbread, donut, *der Döner* – kebab, kebab, *die Bockwurst* – sausage, bockwurst sausage, *die Carrywurst* – sausage, currywurst, meat sausage. In particular, the name *der Eintopf* literally means “one pot”, which reflects the way this traditional dish was prepared: everything that was available was put in the pot – potatoes, cabbage, carrots, meat, mushrooms, beans. It served to feed the whole family and was both the first and second course. Therefore, it is incorrect to consider *der Eintopf* only as “stew”, but it would be possible to conditionally call this thick soup a stew or a ragout. The pastry *die/das Brezel* is, in fact, a type of pretzel, so such a transformation as generalisation can be used in translation. As you can see, generalised equivalents also exist for such words as *der Döner*, *die Bockwurst*, and *die Carrywurst*. The names of some other traditional dishes in the DeepL system are proposed to be transliterated. For example, *der Hackepeter* – hackepeter, *Spätzle* – spätzle, spätzle, *Maultaschen* – maultaschen, moltaschen, maultaschen. Transliterated equivalents are also in the list of proposed ones for *die Bockwurst* and *die Carrywurst*. Having analysed the translation of the words-reals that belong to the thematic group “Food and Drink”, we can state that the DeepL system can be used to translate them for the purpose of general familiarization, except in cases of transliterated translation. After all, the words *hackepeter*, *spätzle*, *maultaschen* by themselves will not be clear to a user who has no idea what they are. On the other hand, for a more accurate translation, the translator needs to refine it, in particular by adding comments or using descriptive translation. For example, with regard to *Spätzle*, it is advisable to explain that

this is a type of pasta made from raw dough, which is cooked right during production.

The name of the traditional women’s clothing *das Dirndl*, which is typical of Bavaria and worn by the vast majority of Oktoberfest visitors, is also reproduced in the DeepL system when translated into Ukrainian by transliteration – *dirndl/dirndl’*. In the Federal Republic of Germany, as in any other country, there are various types of residential buildings. Some of these are specific to Germany and can be considered local realities, such as *das Fachwerkhaus* and *das Reihnhaus*. Using the DeepL system, the following translation options are provided: *das Fachwerkhaus* – half-timbered house, a house in the half-timbered style, *das Reihnhaus* – a house with a terrace. In the first case, the translation fully corresponds to the specific type of building. However, in the second case, a generalisation is observed.

A vivid example of a reality from the thematic group “Life” is the word *die Biotonne*, which clearly reflects the unique organisation of certain household processes in Germany. This term refers to the practise of sorting household waste, specifically organic waste, which is collected in separate containers known as *die Biotonne*. The DeepL system offers two translation options for this term in Ukrainian: trash can for organic waste or container for organic waste. Both options accurately convey the meaning of *die Biotonne* and are suitable for use when translating texts containing this term.

The thematic group “Transport” encompasses a wide range of realities – from the names of vehicles specific to the Federal Republic of Germany, which have no analogues in Ukraine or other countries, to the designations of individuals who are road users or transport users. In Germany, Austria, and Switzerland, one type of local public transport is the *S-Bahn*. According to reference sources, it is an electric railway system that serves local or regional rail transportation within cities and their surrounding

areas (Kirsche & Meinung, 1984). Even in the countries where it is used, the S-Bahn is considered difficult to classify because it occupies an intermediate position between urban public transport and regional rail systems. Consequently, it is not surprising that finding an equivalent for translation into Ukrainian is also challenging. The DeepL system offers the following options: *high-speed railway*, *high-speed electric train*, or *high-speed train S-Bahn*. Given the ambiguity of the S-Bahn's classification as a mode of transport, the most suitable option among these is *high-speed train*, although it does not fully capture the essence of the term. Another example is the type of train *ICE*, whose name is derived from *Intercity-Express*. This is a high-speed passenger train used for long-distance connections in Germany, Austria, and Switzerland. When attempting to translate the abbreviation using the DeepL system, the only option provided is *ICE*. If the translator possesses the necessary background knowledge, this option can be used in the target language, accompanied by a note or comment for clarification. However, if the translator is unfamiliar with this type of train, additional research will be required to adequately render the term in Ukrainian.

The thematic group "Transport" includes several noun-realities used to denote road users. One example is the word *der Geisterfahrer*, which refers to a driver who travels in the oncoming lane, i.e., against the flow of traffic on a road with a divided carriageway. While such drivers exist not only in Germany but also in Ukraine, the Ukrainian language lacks a specific term to denote this category of drivers. The DeepL system offers two options: *ghost driver* and *driver-ghost*. However, in the opinion of the authors of this study, neither option is appropriate in this context. Instead, a descriptive translation should be employed. Another category of transport-related realities is *die Pendler* (singular: *der Pendler*), which refers to individuals who regularly commute long distances

to work, typically travelling from a suburb or even another district into the city. According to the statistical agency Destatis, 40% of the employed population in Germany were classified as commuters based on the 2022 microcensus (Berufspendler, 2022). Translating *der Pendler* using the DeepL system yields the option *suburban*, which is not an adequate equivalent. As with *der Geisterfahrer*, a descriptive translation or a comment explaining the concept to Ukrainian readers would be the most appropriate approach for conveying the meaning of this term.

One of the newly created realities of the modern German language is *das Deutschlandticket*. This term emerged in the summer of 2022, meaning it has existed for less than three years, but it is already widely used across Germany. It refers to a travel ticket sold at a special low price, allowing passengers to use urban public and regional transport throughout the country. By purchasing this ticket, passengers can travel in different cities and on various types of local public transport. When *das Deutschlandticket* was introduced in 2022, it cost only 9 euros and was valid for three summer months. In 2023 and 2024, the cost and purchasing conditions changed: the ticket now costs 49 euros and is available by subscription. This ticket is highly specific to Germany, but to ensure readers from other countries understand its concept, a relatively detailed explanation is required. Regarding translation with DeepL, the system fails to provide a suitable equivalent. The suggested options are: *ticket to Germany*, *ticket in Germany*, *airline ticket to Germany*. As shown, none of these options correspond to the actual meaning of *das Deutschlandticket*, and the last one, in particular, could completely mislead the user, potentially causing misunderstandings.

Consumers in any country visit gastro-nomic establishments and shops, but some of these may be unique to a specific country and have no analogues elsewhere. The following are examples from the thematic group "Shops and Restaurants". Traditional and widespread

in the Federal Republic of Germany are shops called *die Drogerie*, which sell hygiene products, small household goods, a limited selection of drinks and sweets, and over-the-counter medicines. While similar, though not identical, chain stores now exist in Ukraine, there is no specific term in Ukrainian to distinguish them from other types of retail enterprises. The DeepL system provides two translation options: *pharmacy and haberdashery (mainly) store* and *pharmacy*. The option *pharmacy* is unsuitable, as it misleads the user, since *die Drogerie* is not a pharmacy. The first option, however, fairly accurately reflects the range of products sold in such stores and can be recommended for use in translation. One of the traditional gastronomic establishments in German-speaking countries is *die Kneipe*, which DeepL translates as *pub*. While *die Kneipe* is somewhat similar to a pub – offering a limited menu of snacks and drinks – it is not entirely equivalent to a pub in the British sense. Additionally, the concept of a pub is a cultural reality specific to British traditions and carries its own distinct characteristics. Despite these differences, using *pub* as a translation for *die Kneipe* can help users understand the general type of establishment and decide whether it aligns with their needs or if they should seek an alternative.

Special interest is often observed in the manifestations of another culture, particularly in its traditions and customs. Some examples of such cultural distinctions are significant, as there are notable differences between Ukrainian culture and that of German-speaking countries. In Ukrainian culture, it is customary to celebrate the New Year on New Year's Eve. Germans also celebrate this occasion, but the name of the holiday, *der Silvester*, slightly shifts the focus of the celebration in time. *Der Silvester* refers to the last day of the year according to the Gregorian calendar, coinciding with the feast day of Pope Sylvester I, which is why it carries this name. Thus, the celebration in Germany is centred on December 31, not specifically on

New Year's Eve. The DeepL system provides the following translation options for *der Silvester*: *New Year's Night, New Year's Eve, on New Year's Eve*. If we do not detail the cultural differences, these options are generally acceptable, as they convey the idea of New Year's celebrations in the sense of the year changing, avoiding potential misunderstandings.

A typical German tradition is to celebrate not only Christmas but also the period leading up to it. This begins four weeks before Christmas Eve and is marked every Sunday as the first Advent, second Advent, and so on, culminating on Christmas Eve. In Ukrainian culture, there is no equivalent holiday for *der Advent*, and the word *advent* is typically used in translations, often accompanied by an explanation of its meaning. Interestingly, a few months ago, the DeepL system offered *appearance* and *arrival* as translation options for this word. From an etymological perspective, these options are linguistically accurate, as *advent* derives from the Latin *adventus*, meaning *arrival*. However, in the context of the tradition of anticipating Christmas, these translations are inappropriate. Currently, DeepL offers two options for *der Advent*: *Christmas* and *advent*. The first option cannot be used, as it would be a factual error; *der Advent* refers not to Christmas itself but to the period leading up to it – a pre-Christmas season marked by specific traditions. For example, the Sundays of Advent are observed with distinctive features, such as a wreath with one candle lit on the first Advent, two on the second, and so forth. Therefore, the second option is recommended, accompanied by a comment or explanatory note to clarify the essence of this tradition for the user.

When considering traditions in Germany, it is impossible to overlook *das Oktoberfest*, the largest folklore festival in the world and thus widely recognised internationally. Due to its global fame, the term “*Oktoberfest*” has long been adopted into the Ukrainian language, making it unnecessary to explain its meaning.

At the same time, it is important to note that many other traditional festivals are held in Germany, some of which are well-known within the country or in neighboring regions. The relatively large number of such festivals can be attributed to Germany's historical division into many states, each with its own language, culture, and traditions. In these cases, however, additional commentary will often be necessary when translating their names. For example, *das Lullusfest* is the oldest folk festival in Germany, established in 852. It is dedicated to the memory of Archbishop Lull, the founder of the city of Bad Hersfeld. The festival lasts for a week and includes traditional events rooted in medieval customs, such as the ceremonial lighting of a pile of wood, known as the Lullus fire, in the market square. Historically, this fire symbolised exemption from municipal taxes during the festival. The translation options provided by DeepL for *das Lullusfest* are: *Lullusfest*, *festival Lullus*, *Lullus festival*. By analogy with "Oktoberfest", the term "Lullusfest" can be used. However, as noted, it is advisable to include a comment.

Geographical names, as a distinct type of reality, generally do not pose significant difficulties in translation, although they may sometimes require additional explanations. For example, *das Wattenmeer* has the DeepL equivalents *Wadden Sea* and *Wattensk Sea*. Both options are correct and can be used in translation. However, it is advisable to note that *das Wattenmeer* is not a sea in the full sense of the term. It refers to a shallow area of the Atlantic Ocean off the coasts of Denmark, Germany, and the Netherlands, commonly known in Northern Europe as the Wadden Sea. Similarly, for the unique area *der Spreewald*, located in the federal state of Brandenburg and known for its numerous river channels and floodplain meadows, DeepL provides the following translation options: *Spreiwald* and *Spreewald*. Since these options are nearly identical, they do not present challenges in translation. However, to

provide better context, it would be helpful to explain the significance of the Spreewald area in Germany, such as why it attracts visitors who travel through its waterways by boat.

The thematic group "Social Realities" encompasses phenomena specific to Germany for certain population categories within the framework of the social security system. An example is the basic state social assistance *das Bürgergeld*, provided to unemployed individuals through the employment centre. When attempting to translate this term using DeepL, the system offers the options *citizen's income* and *income of citizens*. Analysing these results, it is evident that the translation is an adapted literal rendering of the components: *der Bürger* (citizen) and *das Geld* (money). To produce an adequate translation, however, background knowledge of the German social security system is required, particularly regarding how *das Bürgergeld* functions as part of the welfare framework. Another term in the social sphere of Germany is *der/die Asylsuchende*, which refers to a person intending to apply for international protection in another country. The DeepL system suggests the options *asylum seeker* and *seeker of the asylum*. These translations are accurate and generally align with the meaning of the German term.

As in other countries, the Federal Republic of Germany has specific laws, norms, and rules that regulate employment-related issues, including employees' rights in the workplace and the services or benefits provided to them. In Germany, as elsewhere, employees often have the right to take a day or two of vacation to create a so-called "long weekend", thereby increasing the number of uninterrupted days off, such as during holidays. This practise is commonly used by employees of German companies when one or two working days fall between regular weekends and holidays, separating them. Such a day is referred to as *der Brückentag*, signifying that this working day acts as a "bridge" between non-working days. The DeepL system offers the

following translation options: bridge day and day of bridges. As with the translation of *das Bürgergeld*, the system provides a literal rendering of the word's components: *die Brücke* (bridge) and *der Tag* (day). However, accurately translating the concept of *der Brückentag* requires the translator to have some knowledge of social realities in German-speaking countries or, at the very least, to conduct research to fully understand the term and provide an appropriate translation.

The realities of political life in the Federal Republic of Germany are not always easy to render in Ukrainian. For instance, if a person holding a specific position (ranging from the Federal Chancellor to the mayor of a German city) runs for a second term, nominates their candidacy for re-election, and then loses, the terms *die Abwahl* and *abwählen* are used. These words indicate that the candidate did not receive the required number of votes and was not re-elected. While such a phenomenon – losing re-election – also exists in Ukraine, there is no single word in Ukrainian to denote it. The DeepL system provides the following equivalents for *die Abwahl*: *refusal of elections* and *withdrawal from elections*. These options are misleading and cannot be relied upon, as they inaccurately suggest that the candidate voluntarily withdrew their candidacy, which is not the case. Therefore, neither *refusal of elections* nor *withdrawal from elections* can be used. Interestingly, among the options for translating the verb *abwählen*, the DeepL system also offers to *cancel the choice*. While this translation does not fully capture the meaning – since it implies reversing an already made decision rather than not being chosen – it may still be usable in certain contexts, provided the discussion is clear enough to avoid misunderstanding. On the other hand, there are political concepts whose translation using DeepL is adequate. For example, Federal Chancellor Olaf Scholz referred to society experiencing *die Zeitwende*. DeepL offers two translation

options for this term: *critical point* and *turning point*. Both are accurate and can be used for adequate translation. This success is likely due to the proper rendering of the components of this compound noun: *die Zeit* (time) and *die Wende* (turn).

A separate group of realities comprises the names of institutions and establishments. The most well-known among them generally pose no difficulties in translation, as the DeepL system provides adequate Ukrainian equivalents. For example, *der Bundestag* is translated as *Bundestag*, which is widely recognised as the constitutional and legislative body of the Federal Republic of Germany. For some institutions, the DeepL system offers multiple translation options that can be used. For instance, *das Gesundheitsamt* – department of health, office of health, health department. However, there are cases where the options provided by DeepL do not fully capture the essence of the German reality. This is particularly common in the field of education. For example, *das Studienkolleg* is translated as *training college*. In reality, *das Studienkolleg* in German-speaking countries (Germany, Austria, Switzerland) refers to a preparatory course designed to qualify students for university admission. It is intended for those whose secondary education certificates are not recognised as equivalent to the *Abitur* (maturity certificate). While it is indeed a state educational institution, it is more than just a one-year preparatory course for university entry in a chosen specialty. Additionally, the term *preparatory college* is used on the official website of the German Academic Exchange Service (Deutscher Akademischer Austauschdienst (DAAD)).

Linguistic terms that have recently entered the German language to denote new linguistic phenomena are of particular interest. For example, over the past decade, the term *die Jugendsprache* has become increasingly prevalent. DeepL provides two translation options: *youth language* and *language of youth*. It should

be noted that the equivalent *youth slang* is sometimes used, although this option is not included in the DeepL system. Nevertheless, the more commonly accepted term is *youth language*, which refers to modes of communication or linguistic patterns employed by various groups of young people. German linguists frequently criticise the spread of a phenomenon known as *Denglisch* in German-speaking regions. This term, formed by merging and shortening *Deutsch* (German) and *Englisch* (English), reflects the increasing use of Anglicisms and pseudo-Anglicisms within the German language. In German linguistics, *Denglisch* is often used in a pejorative sense, predominantly as a term of criticism. DeepL offers only the transliterated version, *Denglish*, as a translation for this term. Consequently, a translator must provide additional context by including a note or comment to clarify the essence of the phenomenon.

The thematic group “Mythical creatures/fairy-tale characters”, despite initial concerns about potential challenges, turned out to be relatively straightforward to translate. Examples include: *das Rotkäppchen* – Little Red Riding Hood, *das Aschenputtel* – Cinderella, *der Weihnachtsmann* – Santa Claus. These realities are translated accurately by the DeepL system, as they have well-established equivalents in the Ukrainian language. This is due to the long-standing tradition of translating and publishing fairy tales, which are widely read in Ukrainian. A separate thematic group, “Ironic everyday realities”, consists of German words commonly used in everyday communication to describe various phenomena, objects, or people. Attempting to translate these terms using DeepL reveals significant challenges, as shown by the following example: in Germany, avid readers are humorously referred to as *die Leserratte*. DeepL translates this as *bookworm*, which is technically correct. However, the translator must understand the cultural nuance of this term, as it is a humorous and ironic designa-

tion for someone who reads extensively, rather than a term that might be interpreted as pejorative, such as *nerd*.

During the coronavirus pandemic, Germany experienced a phenomenon of mass purchases of various consumer goods, particularly non-perishable food products – behaviour that is not typically associated with German residents. However, driven by fears of supply disruptions and potential shortages, people began stockpiling food and everyday items. To describe such purchases, the term *die Hamsterkäufe* emerged, drawing an analogy with hamsters’ habit of hoarding food. Logically, this term could be translated as mass purchases, accompanied by a comment explaining the nature of these purchases and the context in which they occurred. The DeepL system, however, offers a single translation for *die Hamsterkäufe*: shopping for hamsters. This is an instance where the system translates the components of a compound noun but fails to convey its figurative meaning. A similar issue arises with the term *das Drachenfutter*, which DeepL translates as dragon food. In reality, this term refers to delicacies or gifts that a man brings home to appease his partner – humorously referred to as domestic dragon. Similar translation challenges are observed with other words used as ironic designations in everyday language. For example: *die Helikoptereltern* is translated as “helicopter parents”, which accurately conveys the meaning of overly attentive and protective parents; *die Idiotenprüfung* has the DeepL options “idiotism test” and “idiot test”. This term refers to a test required for drivers who wish to renew their driver’s licence after it has been revoked due to repeated traffic violations. While these translations may seem odd, they carry an implicit association: drivers repeatedly fined for violations yet failing to learn from their mistakes might be humorously referred to as “idiots”. The results of these attempts to translate realities using the DeepL system are summarised in Table 2.

Table 2. Number and proportion of adequately translated realities using DeepL system

| Thematic group | Number of adequately translated realities | Share of adequately translated realities (%) |
|--|---|--|
| Food and drinks | 26 | 76 |
| Clothing | 6 | 75 |
| Housing | 5 | 71 |
| Life | 8 | 73 |
| Transport | 7 | 50 |
| Shops and Restaurants | 5 | 56 |
| Traditions and Customs | 8 | 67 |
| Geographical Names | 22 | 92 |
| Social Realities | 7 | 50 |
| Political Realities | 6 | 55 |
| Institutions and Establishments | 4 | 50 |
| Linguistics | 2 | 40 |
| Mythical Creatures/Fairy-tale Characters | 9 | 90 |
| Ironic Everyday Realities | 0 | 0 |

Source: created by the authors based on research conducted

An analysis of the share of adequately translated realities reveals significant variation across thematic groups, ranging from 0% to 92%. The lowest result (0%) is observed in the group “Ironic everyday realities”, which comprises words from everyday speech used figuratively to ironically or humorously refer to specific persons, objects, phenomena, events, and so on. In contrast, the highest results were achieved in the thematic groups “Mythical creatures/fairy-tale characters” (90%) and “Geographical names” (92%). This can be attributed to the stability of words and expressions in these groups, which, firstly, have been in use in the German language for a longer time, and secondly, have clear counterparts documented in dictionaries, encyclopedias, or other reliable sources.

When discussing research on a similar topic, special attention is given to studies exploring the impact of translation technologies on the translation process and its outcomes (Doherty, 2016), particularly regarding error correction (Yvette *et al.*, 2019). Researchers G. Veselovska & S. Radetska (2021) examined different types of machine translation systems, including: rule-based machine translation, which relies on linguistic information about the

source and target languages, such as dictionaries and grammars; statistical machine translation, which is based on analysing large volumes of bilingual text pairs; hybrid systems, which combine rule-based and statistical approaches.

The authors emphasise the growing popularity of hybrid approaches. At the same time, they note that machine translation systems work qualitatively mainly at the level of word combinations. B. Banitz (2020) conducted a comparative assessment of text translations using the Systran and Google Translate systems, with Google Translate proving to be better. In the context of the study, the author’s conclusion is important: despite the relatively good quality of Google’s translation of texts into German, the result was perceived as “somewhat non-native German”. In addition, general-purpose machine translation systems are not suitable for certain types of text, especially creative ones. The author K. Ryabova (2024) studied the impact of machine translation performed by Systran, O. translator, and M-translate on the quality of translation of legal texts. According to the author, the quality of translations produced by these three systems turned out to be approximately the same, as well as typical errors in the translation of

modal verbs, adverbs, and prepositional phrases. None of the systems provides a complete high-quality translation of legal texts but can be used for general familiarization. According to P. Maslianko & E. Sielskyi (2021), there are relatively few popular developers of machine translation systems on the market.

The adequacy of the translation of realities – and consequently, the overall quality of the translated text – varies across thematic groups. The challenges encountered when using the DeepL system to translate realities are primarily associated with the translation of abbreviations and words used figuratively.

Conclusions

The conducted study has demonstrated the feasibility of using the DeepL system to translate real words from German into Ukrainian. However, the quality of translation largely depends on the thematic group to which a particular real word belongs. It is not possible to fully rely on the DeepL system for translating real words, even when post-editing the translated text is applied. Based on the obtained results, it is concluded that the DeepL system can generally serve as a useful tool in the translation process, particularly for real words. Nevertheless, its effectiveness is limited by factors such as the thematic group of the real words, their frequency

of use, the time of their emergence, and their geographical distribution within German-speaking regions. Additionally, whether the real word carries a direct or figurative meaning significantly influences the system's performance; in the latter case, the effectiveness of the DeepL system is considerably reduced.

In some cases, the system's suggested matches are generalised or transliterated variants. While these may be acceptable for certain uses, the level of translation adequacy may be compromised. To achieve an accurate translation, the translator must possess relevant background knowledge and the ability to conduct additional research. For objects and phenomena lacking equivalents in the Ukrainian language, additional explanation is often necessary, making the descriptive translation method advisable. Future research could focus on comparing the results of translations performed using several machine translation systems. In particular, exploring the comparative effectiveness of the DeepL system versus other similar systems appears to be a promising direction.

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Conflict of Interest

None.

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Переклад реалій сучасної німецької мови з використанням системи DeepL

Світлана Амеліна

Доктор педагогічних наук, професор
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<http://orcid.org/0000-0002-6008-3122>

Ростислав Тарасенко

Доктор педагогічних наук, професор
Національний університет біоресурсів і природокористування України
03041, вул. Героїв Оборони, 15, м. Київ, Україна
<https://orcid.org/0000-0001-6258-2921>

Ліін Шень

Доктор філософії з педагогіки
Аньхойський міжнародний університет
1366, Цяньцзян Роуд, м. Ханчжоу, Китай
<https://orcid.org/0000-0001-7421-2899>

Анотація. Актуальність теми дослідження зумовлена зростанням ролі систем машинного/автоматичного перекладу і можливістю їх використання перекладачем як допоміжних інструментів під час виконання перекладу. Метою статті було вивчення можливостей використання системи DeepL для перекладу реалій сучасної німецької мови українською мовою. Під час проведення дослідження був застосований комплекс методів: метод аналізу і синтезу, зіставний і описовий методи, узагальнення. Встановлено, що частка реалій, адекватно перекладених за допомогою системи DeepL, варіюється в залежності від тематичної групи. Розподіл за тематичними групами, а також кількість і частка адекватно перекладених реалій у системі DeepL, узагальнені у відповідних таблицях. Найвищий показник отримано у тематичній групі «Географічні назви», а найнижчий (нульовий) у тематичній групі «Іронічні повсякденні реалії». Визначено, що найбільш вдалим варіантами перекладу були відповідники складних іменників (комполітивів), якщо їх значення відповідало комбінації значень складників і при цьому було прямим. У іншому випадку отриманий результат був незадовільним. Аббревіатури залишались у незмінному вигляді, тому для їх вірного перекладу перекладачеві необхідно мати фонові знання або здійснити додаткові пошуки довідкової інформації. Частина правильних варіантів перекладу реалій наявна у системі DeepL у вигляді відповідників, отриманих шляхом транслітерації. У окремих випадках вдалим виявились відповідники, які були генералізованими варіантами. Реалії останніх трьох років, незважаючи на їх розповсюдження на всій території Федеративної Республіки Німеччини, були перекладені невірно. Для їх перекладу доцільно використати описовий спосіб. Отримані результати можуть бути використані перекладачами у процесі виконання перекладу текстів, які містять реалії

Ключові слова: автоматичний переклад; тематичні групи; системи машинного перекладу; німецькомовні реалії; адекватний переклад