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MEDICAL NEOLOGISMS: TRANSLATION PECULIARITIES

МЕДИЧНІ НЕОЛОГІЗМИ: ОСОБЛИВОСТІ ПЕРЕКЛАДУ

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The article deals with the problem of translation of neologisms in the modern medical field. The translation of neologisms is a very relevant and interesting topic for research among linguists. Every year, various fields of science and technical developments contribute to the emergence of a large number of new lexical items. The medical industry is one of the most productive industries in this direction. New technical inventions, implantation, prosthetics, various new vaccines replenish the language with new words and abbreviations, which is of great interest to study. The emergence of artificial intelligence has given an even stronger impetus to the accelerated development of the medical field, and this, in turn, contributes to an even greater replenishment of the lexical component of languages around the world. New lexical units, formed not by a person, but by software, are of great interest for research. This is happening for the first time in the history of Linguistics, and this explains the interest of researchers. The appearance of 3D printers, the newest system of prosthetics, new vaccines – all these fields replenish the vocabulary of the language with hundreds of new words and abbreviations. This trend requires the availability of highly qualified translators who will be aware of the latest developments and research and will be able to perform accurate and adequate translation. This is extremely important in the modern world, because, in the conditions of globalization, countries constantly exchange experience in the medical field, many patients use the system of medical tourism when they travel to other countries for treatment, doctors undergo various international internships. And all of them require adequate and accurate translation of all subtleties in this field. After all, the life and health of a person depends on the accuracy of the translation, as well as the correct perception of the received information by a specialist and the subsequent use of this information. All these factors make the task of a translator working in the field of medicine extremely responsible and important, because errors or inaccuracies in translation can lead to dire consequences.

Key words: translation, neologism, medical field, linguistics, technologies.

У статті розглянуто проблему перекладу неологізмів у сучасній медичній галузі. Переклад такої лексики на сьогодні є актуальною темою для дослідження в межах сучасного лінгвістичного дискурсу. Щороку потужний розвиток різноманітних галузей науки й інноваційні технічні розробки сприяють появі великої кількості нових лексичних одиниць. Медична галузь є однією з найпродуктивніших у цьому напрямку. Технічні винаходи, імплантація, протезування, новітні вакцини поповнюють лексикон повнозначними мовними одиницями й абрєвіатурами, що становить значний інтерес для науковців. Поява штучного інтелекту дала

поштовх масштабному розвитку медичної галузі, що сприяло глобальному залученню відповідних одиниць до професійних терміносистем. Нові слова, утворені не людиною, а програмним забезпеченням, становлять неабиякий інтерес для перекладача. Подібне явище в історії мовознавства відбувається вперше, що пояснює релевантну зацікавленість дослідників. Поява 3D-принтерів і революційної регенеративної медицини визначає формування відповідних термінологічних субсистем із внутрішньою системою кодування.

Така тенденція зумовлює потребу в залученні висококваліфікованих перекладачів, які розуміються на новітніх розробках у цій галузі й спроможні виконати точний та адекватний переклад. Це є надзвичайно важливим у сучасному світі, адже в умовах глобалізації країни, науковці постійно обмінюються досвідом у медичній сфері. Численні пацієнти ладні скористатися системою медичного туризму, коли вони мають змогу виїхати до іншої країни на лікування, а лікарі отримують гранти на міжнародні стажування. Безумовно, процес лікування і медичні процедури, система медичного супроводу, медична документація потребують адекватного й детального перекладу. Від точності перекладу отриманої спеціалістом інформації залежать як життя і здоров'я людини, так і подальше використання цієї інформації у роботі. Всі ці фактори визначають роботу перекладача, який працює в галузі медицини, як надзвичайно відповідальну й важливу, оскільки помилки або огріхи інтерпретування можуть призвести до непередбачуваних наслідків.

Ключові слова: переклад, неологізм, медична галузь, мовознавство, технології.

Defining the problem. The invention of artificial intelligence turned the modern world upside down and significantly influenced many fields of science. The field of philology was no exception. Many researchers have a desire to pay attention to these global changes in scientific progress and to investigate the specifics of the translation of vocabulary that arose with the help of artificial intelligence and the latest modern technologies. Their use gave a powerful impetus to the appearance of a large number of new lexical units. And this vocabulary is an interesting material for research.

The modern world tends to have many innovative medical achievements that are always improving and making new discoveries through science. Every year, scientists invent new achievements that can change the way we understand science. These inventions very often can help people who were not able to live a normal life before. This shows up in the vocabulary of different languages because new scientific discoveries don't just bring help with technical stuff, but also add lots of new words to many languages. Every year, appear more and more newly created words. These new words need to be carefully studied to see how they affect the language. Mostly we should talk about English language as it is worldwide.

Analysis of recent research and publications. Many researchers are interested in the topic of translation of neologisms, that makes this topic relevant. The latest developments in scientific and technical progress caused an active phase of word formation. And this word formation should be studied carefully from different points of view. For example, Kozachenko I. V. [1] claims that the translation of neologisms is important precisely with the use of an explanation of their meaning, which will make them more understandable for a certain target audience. Kolodyazhna T. Yu. [2] emphasizes that neologisms should be considered as changes in the language and as words which have their own international character. Zanovska V.I. [3] also considers neologisms from the point of view of specifying their meaning, which will make it possible to narrow down the options for finding analogs for their translation.

Setting the goals and tasks of the article. This article aims to provide a general introduction to the issues of translation of neologisms in the medical field, taking into account the latest developments and use of artificial intelligence, as well as other important inventions. The topic of the use of artificial intelligence is extremely interesting, so we could not help but discuss this issue from the point of view of word formation and the specifics of translating such vocabulary.

The study used scientific articles about new ways to make artificial body parts for people, using modern technologies, the usage of Artificial Intelligence in medical sphere which plays a crucial role in science nowadays. In our research on this topic, we carefully studied different scientific information in articles and used methods like comparing things and making general conclusions.

The outline of the main research material. The sphere of medical research today is important and topical as the spread of globalization has led to the exchange of knowledge and technology worldwide. This has increased the need for medical translation. His sphere has extreme number of neologisms which need to be translated. But, it's hard to find a translator who is able to be really keen on all the details of this kind of translation and has good knowledge about it. Unfortunately, people who are not professional translators often don't do proper research on how to translate medical terms that have already been translated before. This leads to lots of different translations for the same terms.

Translation of medical information is becoming a bigger issue now because more people are traveling to other countries for medical treatments due to advances in science and technology. Medical tourism is becoming more popular and thousands of people use it every year. Thanks to new scientific discoveries and popular trends in medical advances, there has been a big increase in the need for medical translations in recent years.

Medical tourism is a new area that needs really skilled professionals in the sphere of translation who know all the latest medical advancements and can give accurate information. Every year, more and more people will need translators for medical tourism because this industry is growing extremely fast. In this area, all the tools for marketing around the world have been made and are connected together. Many scientific conferences about traveling for medical treatment are held around the world. A patient couldn't find a solution to his medical problem in his own country, so he decided to go to a foreign country that can offer him a better and more up-to-date treatment. People who travel to other countries for medical care make the field of medicine improve faster.

The rise of medical tourism helps to spread and promote translation activities because good medical care needs accurate and trustworthy translation.

Every year, there are lots of exciting new discoveries in medicine. Unlike in the past, these new discoveries use both medical and technical ideas. Modern ways to make artificial body parts, replace organs, and put in implants are very different. Because of this, it's important to have good translations for all the information about these achievements and technological progress. This makes a need for translators who can work in both medicine and technology. They must be good in the sphere of modern science and be able to help professionally when needed.

So, the study of translation needs to keep up with the latest medical research and make sure that doctors and patients can understand it accurately.

In the last few years, prosthetics have improved a lot. Today, scientists are working on creating advanced prosthetic limbs that can do everything a real limb can do.

Some of the most important scientific findings in today's world include:

The newest way to make artificial arms is called the *i-limb quantum*. I-limb prostheses use special technology that lets you control them with your muscles. The i-limb works using software that controls different movements and grips. You can also change how tightly it holds things. The bionic arm can do a lot of precise movements at the same time, like bending and turning the shoulder, elbow, and wrist, and making the fingers grip. It does this by taking signals from the muscles and sending them to a computer inside the arm that controls how it moves.

Artificial legs *The BiOM Ankle* prostheses have little computers and sensors that can quickly and automatically change the foot angle and how soft it feels.

Artificial heart. Another important field of bioprosthetic is making a fake heart. In simple terms, scientists are looking at two ways to make a new heart: by designing a mechanical one or by growing a biological one. Progress of the first kind has been happening for a while. For a while, there have been problems with making a strong but small power source and finding strong materials for artificial hearts that can't repair themselves like real hearts. Today, there are some projects that help with these problems.

The process of putting different chips under the skin is already being used to help people with diabetes manage the disease and its effects on the body.

And now it is important to pay attention to the most topical sphere worldwide nowadays – usage of Artificial Intelligence (AI).

Using Artificial Intelligence in medicine is important for understanding new words and abbreviations. AI helps to gather the most up-to-date information, which often includes new words that can be difficult to translate. In recent years, we have improved using artificial intelligence and machine learning in healthcare. AI systems can analyze a lot of medical information, such as pictures, test results, and patient records [4].

Many studies have found that AI can be very useful in the medical field. The scientists created a computer program that can find skin cancer just as well as dermatologists can. A group of scientists created a computer program that can forecast if someone may develop psychosis if they have early signs of mental illness [4].

Another very important sphere for creating new lexical units is Pharmacy. The pandemic of COVID-19 led to the spread of lots of researches in finding an efficient vaccine. This also led to appearance of many neologisms and abbreviations which needed translation. For example, the creation of *mRNA vaccines*, the *Pfizer-BioNTech* and *Moderna vaccines* [4].

New developments in medical science could change the way healthcare is provided and help patients to recover. With new tools like telemedicine, gene editing, and AI, doctors can now find and treat illnesses more accurately and effectively. Additionally, using such kind of technologies like 3D printing and regenerative medicine is making new and better treatments for illnesses that couldn't be cured before. Medical science has made amazing progress and gives hope for a healthier future, but there are still challenges to deal with. In the future, we will see more new and exciting achievements [4].

Therefore, as stated above, modern science gives us new and creative ideas, which make a lot of new words. So, we need to look at this problem more closely in the field of translation studies.

Kolodyazhna T. Yu. says that the term «neology»: «is the science about new language units, which have international peculiarities» [2]. Neology focuses on creating new words, which are unique and new to society at a specific time and place. The word «neologism» has several meanings, but all experts agree that it is a new word that has come into use because of changes in society or new meanings for existing words. In our research, we will use the newest understanding of this idea.

Translating new words is tricky because sometimes you can't just use the same letters from one language to another. New words made in recent years need to be carefully looked at because if we don't understand how they were made, it can be really hard to translate them accurately.

Translations usually change words in some way. Translation transformations happen when a translator can't find the right word or there isn't a word for it in the other language. Translation changes are often divided into:

- lexical (transcription, transliteration, tracing);
- grammatical (literal translation or grammatical substitutions);
- complex lexical and grammatical transformations (descriptive and antonymous translation).

When creating new words in modern medical research, it is common and appropriate to use additional information to explain them. This happens because new words are not always easy to understand, so we need to describe them in order to translate them accurately.

For instance, the word *i-limb quantum* cannot be written or traced because it doesn't show what this word means. We need to know more about this invention to understand it better. This means we can call it *I-limb quantum*, which is a fake arm that works like a real one.

The name *BiOM Ankle* (a bionic foot) is a little easier to understand because it has the word «ankle» in it. But it still needs to be explained in a simple way for people who don't know much about medicine to understand it.

The word *SynCardia* means a fake heart that is made to work like a real one. Just like other new words, it needs to be explained in simple terms.

So, as we can see, the new names for prostheses need more than just the word or picture to be understood. They also need a detailed explanation, that is why we use a descriptive method when translating these terms. Kozachenko I.V. stated that descriptive translation can be done in different ways. Descriptive translation helps to explain important things. This method of translation is too wordy. So, the descriptive method makes the word's meaning bigger. In modern medicine, this method helps to find the right translation for new words [1, p. 167].

Conclusions. In today's world, with the improvement and progress in the fields of science and technology, the demand for broadcasting modern medical knowledge and innovations is increasing for many reasons. Every year there are more and more newly created lexical units that require translation and explanation. This leads many people to search for accurate translations. The field of neologisms is quite difficult for translation, because it requires a lot of additional knowledge in the field which we translate in. The emergence of the latest technologies in the field of artificial intelligence, 3D printers, and the development of vaccines against the Covid-19 pandemic have contributed to the emergence of a huge number of new lexical items that require their accurate translation. And this, in turn, requires the availability of highly qualified translators who can provide an accurate translation of such vocabulary for general use.

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