Анализ возможности использования нейросети для генерирования заданий по английскому языку

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АННОТАЦИЯ

Введение. На сегодняшний день нейросети используются в различных областях, способны повысить качество работы и значительно сократить время, затрачиваемое на выполнение рутинных задач. Применение нейросетей в образовании активно изучается, но на данный момент существует нехватка исследований в области генерации заданий для аудиторного обучения студентов иностранному языку, чем обусловлена актуальность данной статьи.

Цель работы – анализ возможности использования нейросети в качестве инструмента разработки заданий для текущего контроля знаний студентов по английскому языку.

Методы и материалы исследования. Для анализа результатов были использованы такие методы, как качественный анализ, анализ ошибок и анализ производительности. Были проанализированы ответы нейросети YandexGPT 2 на запросы по созданию заданий для текущего контроля – заданий для закрепления изучаемой лексики и контрольных работ, состоящих из нескольких частей. Исследование проводилось в Санкт-Петербургском горном университете императрицы Екатерины II со студентами 1 курса.

Результаты исследования. По результатам анализа запросы изменялись с целью получения ответа, который требовал бы минимальных правок со стороны преподавателя. Несмотря на то, что в ходе исследования не удалось создать запросы, которые всегда давали бы одинаково хороший результат, полученные ответы нейросети были успешно использованы для текущего контроля, позволив быстро подготовить несколько вариантов контрольных работ для закрепления изучаемой лексики и грамматики. Таким образом, в ходе исследования была изучена возможность использования нейросети для создания традиционных заданий по английскому языку, которые до сих пор востребованы на занятиях.

Заключение. Исследование показало, что использование нейросетей для создания материалов для текущего контроля существенно сокращает время на их разработку и позволяет адаптировать материалы под каждую группу студентов, что повышает их качество. Полученные выводы могут быть полезны для создания других типов учебных материалов.

КЛЮЧЕВЫЕ СЛОВА

нейросеть, образование, английский язык, текущий контроль, генерирование текстов

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Analysing the feasibility of using a neural network for generating English language assignments

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ABSTRACT

Introduction. Today neural networks are used in various fields, being able to improve the quality of work and significantly reduce the time spent on routine tasks. The application of neural networks in education is actively explored, but at the moment the research in the field of task generation for classroom teaching of foreign language students is scanty, which accounts for the relevance of this article.

The aim of the work is to analyse the possibility of using neural networks as a tool for developing tasks for current control of students' English-language knowledge.

Methods and materials. The results were analysed using qualitative analysis, error analysis and performance analysis. The YandexGPT 2 neural network's response to the queries for creating current control assignments was analysed, in particular, tasks for consolidating the studied vocabulary and test papers consisting of several parts. The survey involving 1st-year students was implemented at the Empress Catherine II Saint Petersburg Mining University.

Results. Based on the results of the analysis, the queries were modified to obtain an answer that would require minimal adjustment by the teacher. Although it was not possible to create queries that would consistently yield a good result, the neural network's answers were successfully used for current control, making it possible to quickly prepare several versions of test papers aimed at consolidating the studied vocabulary and grammar. Thus, the survey explored the possibility of using neural networks for devising traditional English language tasks that are still in demand at the training sessions.

Conclusion. The research showed that the use of neural networks for creating materials for current control significantly reduces the time for their development and allows the teacher to adapt the materials for each group of students, which improves their quality. The findings can be useful for the development of other types of teaching materials.

KEYWORDS

neural network, education, English language, current control, text generation

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INTRODUCTION

As emphasized at the HESI Group Global Forum of 2023 [16], higher education continues to play an important role in promoting the UN Sustainable Development Goals, and therefore the higher education system needs to develop rapidly and focus on transformational changes. Education should take place at a high level and include modern achievements such as artificial intelligence which can revolutionize the education system.

Empress Catherine II Saint Petersburg Mining University trains students, many of whom, after graduation, work in such important areas of our society as mining, prospecting, processing of mineral raw materials, industrial and civil engineering, oil and gas, etc. The success of the industry as a whole depends on the professional and personal competencies of each specialist, as emphasized by the rector of the University V.S. Litvinenko in his recent study [32]. That is why it is so important to use innovative approaches to learning, including teaching a foreign language. For example, I.G. Gerasimova and I.S. Oblova in their research proposed a learning model that promotes simultaneous development of both foreign language communicative competence of engineering students and their innovative potential [17]. Teachers of the Department of foreign languages of Mining University strive to provide students with high-quality education, including the development of tasks that best meet the goals and objectives of each specific group. Developing such tasks from scratch requires a lot of time, so teachers actively use information and communication technologies (ICT), which allow them to achieve these goals, at the same time saving time and effort. For example, E.A. Varlakova and colleagues developed an online course for teaching business English to Master students [24], the experience of using online courses with elements of artificial intelligence is described in the work of E.N. Nikonova and her colleagues [20], and the work of Yu.E. Murzo and N.V. Chuvileva [38] demonstrates the experience of using the university's own online platform to provide students with necessary materials and exchange information in a distance learning environment.

In the modern educational environment, there is a tendency to digitalize education, as shown, for example, in the study of digital transformation of engineering education by I.G. Shestakova and V.V. Morgunov [23] and the study of the problems of digitalization in the modern educational system by A.A. Rozanova and F.I. Rozanov [36]. Various technologies that optimize the educational process to make it more interesting and productive for students are being actively used. For example, A.I. Folomkin and colleagues have developed a training program for the Descriptive geometry subject based on neural network technologies to develop spatial thinking in students and to implement elements of individualization of the educational process [30].

One of the most striking examples of the use of ICT in education is the use of GPT – a generative pre-trained transformer. GPT, originally developed by OpenAI, is a type of language model trained on huge amounts of text, which allows it to generate texts similar to human-composed texts.

The history of GPT began in 2018, when the company first introduced the GPT-1 model, which was improved in subsequent years to GPT-4. Given the current political situation, the use of ChatGPT in Russia has become problematic, so in this study we turned to a Russian creation with similar functionality – YandexGPT 2 [14]. Today, GPT is becoming increasingly popular in the field of education, helping students learn new languages, analyze texts, and even create their own essays. However, the use of GPT in teaching in general and a foreign language in particular to ease the workflow for teachers in the learning process has not yet been sufficiently studied, including the development of new tasks and efficient ongoing control of student knowledge.

Ongoing control of student knowledge is an important element in an educational course. It helps to keep students motivated to learn English. If students know that their progress is checked and evaluated on a regular basis, they are more likely to try to improve their knowledge and skills. After completing an ongoing test, students receive feedback about their progress. This allows them to identify the gaps that need to be filled and focus on the process of eliminating them.

Regular ongoing control allows teachers to assess the progress of students and, if necessary, make adjustments to the curriculum. The ongoing control makes it possible to adapt the teaching process to the individual needs of students. Teachers can identify which students and in which areas are experiencing difficulties and offer additional resources or support.

Regular ongoing control makes it possible to evaluate the effectiveness of learning and determine how well students are mastering the material. It can also help identify problems in teaching materials or teaching methods and make the necessary changes. Ongoing control stimulates competitive spirit among students, which, in turn, can increase their interest in deepening and expanding knowledge, their motivation, which is one of the most influential factors for effective language learning in groups of young people [34]. Thus, improving the tools for conducting ongoing control of English language knowledge will help to improve all of the above aspects. And optimizing the time spent on such tools will make it possible to focus on the content and develop materials that best meet the individual needs of students.

The goal of this article is to analyze the possibility of using the YandexGPT 2 neural network as a task development tool for the ongoing control of English language knowledge of students. To achieve this goal, it is necessary to complete the following tasks:

- create prompts for generating ongoing control tasks and analyze neural network responses;
- test the generated tasks in English classes;
- assess if the use of the neural network simplifies or complicates the process of developing tasks for ongoing control;
- work out further prospects for neural network use to generate English language tasks.

LITERATURE REVIEW

The use of artificial intelligence and, in particular, neural networks is being studied by specialists in various areas, including the field of oil and gas production relevant to Mining University. For example, E.A. Samylovskaya and colleagues studied the experience of using digital technologies for oil and gas production in the Arctic [33], E.V. Filippov and colleagues studied the use of artificial intelligence for quick analysis of collected data related to oil and gas production and for planning future operations [29], and M.Yu. Zemenkova and her colleagues considered the possibility of using artificial intelligence to monitor the condition of hydrocarbon pipeline transportation facilities [27].

Researchers consider the advantages of using video analytics in production [35], the impact of neural networks in general on economy, business and education [8]. Artificial intelligence helps to optimize routine processes and quickly analyze large amounts of information. The humanities are also actively exploring the possibilities of using neural networks and artificial intelligence, for example, for psychological counseling [12] and crime investigation [25].

Researchers in the field of education also consider the use of these technologies. One of the special areas of research here is literacy in the field of artificial intelligence, that is, the ability of teachers and students to use these technologies. For example, a Swedish team of researchers conducted a literary review on this issue [4], an American college conducted a course on the use of artificial intelligence in higher education, which increased the ability of course students to understand and critically evaluate the value of using artificial intelligence in education [5], and a study by B. Moorhouse and L. Konke showed the need for training foreign language teachers to adapt them to the growing influence of generative artificial intelligence [2].

Neural networks and artificial intelligence are used to teach a wide variety of subjects. Of particular importance are works studying the use of artificial intelligence in education in general, for example, to reduce workload and subjectivity in the development of training programs and tools for assessing student knowledge [22]. V.M. Lim and colleagues considered the paradoxes of using artificial intelligence in education [19], and E.V. Vesetiu studied the pros and cons of implementing neural networks in higher professional education [26], while T.M. Shamsutdinova considered the possibility of modeling the structure of adaptive learning environment based on neural network [31]. The use of neural networks to create individual learning trajectories is discussed in the study of O.N. Filatova [28] and in the work of V. Petrov [11], while H. Davis and colleagues call for a more sensible and careful use of artificial intelligence to individualize learning process [37].

Teachers may be distrustful towards neural networks, since with their help students can complete homework and projects in a matter of minutes without bothering to work, and even write a thesis with their help [10]. Nevertheless, Y.S. Baranchikov emphasizes the fact that they can be used as an individual assistant which suggests the most optimal way to study the material [6]. In his research, G.V. Yaroshenko examines both positive and negative sides of artificial intelligence use in education and concludes that at the moment it has no negative social consequences, but its development requires further study [15].

Artificial intelligence technologies have been used in teaching various disciplines, for example, surgery [3], philosophy [13], graphic design [9]. In the field of teaching foreign languages, primary consideration is given to the effectiveness of online platforms that use neural network technologies [18]. Meanwhile Y. Karati and L. Karati studied the experience of using artificial intelligence for automatic assessment of written assignments in a foreign language [1]. D.V. Osipov says that neural networks and, in particular, translators, help users overcome the language barrier and communicate more freely on the internet [21]. The study of the experience of using ChatGPT to determine goals and format of language teaching for each student [7] is of particular interest for us.

Despite a sufficient number of advantages of using neural networks in teaching English, the researchers note the impossibility of complete transition to teaching with their help. Traditional methods, learning with the help of a teacher, are still in demand. It should be noted that there is a lack of research in the field of generating tasks for teaching a foreign language to use them in the classroom with students, which is why this article is relevant.

MATERIALS AND METHODS

The research presented in this article was conducted while teaching English for one semester at Saint Petersburg Mining University. The materials were developed for first year students. Despite the fact that the curriculum of the Foreign language subject is the same for all students, they have different levels of language knowledge and study in different specialties, which necessitates an individual approach to the development of materials for the ongoing control of student knowledge. It is difficult to find ready-made solutions in textbooks or on the Internet. The development of these materials by a teacher requires a lot of time, and therefore it is not always possible to develop several versions of materials for each group and update them regularly, which reduces the effectiveness of ongoing control. There is a risk that students may copy off each other or pass the answers to groups that complete these tasks later or next year. With the development of neural networks, an attempt was made to simplify the procedure for developing these materials and thereby increase the effectiveness of ongoing control.

The YandexGPT 2 neural network was chosen as the object of research [14], since it is available in Russia and does not require registration or payment. The following methods were used to analyze the neural network responses:

- qualitative analysis – examining the materials created by the neural network to see if the match the prompt accurately, if they have any additional elements (not specified in the prompt), if there is a need for any modifications to be made by the teacher;
- error analysis – checking for grammatical and lexical errors made by the neural network when generating materials;
- performance analysis – comparing the time spent on creating materials using a neural network and in the traditional way, that is, measuring the time spent by the teacher and the neural network when performing this work.

Generated materials in this study were tasks for the ongoing control of academic performance of students: individual tasks for vocabulary reinforcement (filling the gaps with words from the list, translating sentences) and tests consisting of several tasks.

RESULTS OF THE STUDY

1. Creating tasks for vocabulary reinforcement

During the course, a list of vocabulary is compiled. This list is unique for each group. In order to reinforce this vocabulary, students do tasks with gaps where they need to insert words from the list, or translate sentences containing words from the list.

Since we had no experience in prompting at the beginning of the study, the prompts were being tested as we prepared for classes and were not always immediately successful, as we were not aware of all the capabilities of the neural network. One of the main challenges in creating English language tasks is to come up with sentences that use necessary vocabulary or grammar so that they are diverse and allow students to get involved as much as possible, since monotonous sentences lead to memorization of certain structures, and not to the development of the ability to use the language in any situation.

Hereinafter we demonstrate the progress of prompt optimization in order to obtain a response that requires minimal or no edits before being used in class. Important note: all prompts were made in Russian, words to be used were in English.

Prompt 1: Write sentences in English using the words to commence, to view, to announce, appropriate, facet, to respond, cover letter, maple, heritage, considerable.

Response: I'm sorry, but I can't keep up a conversation in this language yet. Do you speak Russian?

Modified prompt 1 (the same prompt, but all the words had translation into Russian): Write sentences in English using the words to commence, to view, to announce, appropriate, facet, to respond, cover letter, maple, heritage, considerable.

Response:

1. To commence the meeting, we will first discuss the new budget.
2. Viewing the options available, I think you'll prefer this one.
3. The concert will announce the release of their new album next month.
4. It was an appropriate choice for the event's theme decorations.
5. Each facet of the project needs to be carefully considered.
6. We will respond to your email within 24 hours.
7. Please attach a cover letter when submitting your application.
8. The maple leaf is a symbol of Canada's natural heritage.
9. This new initiative has considerable potential to impact our community.

Analysis:

- the neural network cannot process prompts that contain English words without translation;
- in sentences 2, 3, 6, the verb form has been changed (not the infinitive is used), although this has not been indicated in the prompt;
- the language level of the generated sentences corresponds to the level of the vocabulary used in the prompt;
- there are no grammatical or semantic errors;
- all the words have been used;

- sentence 8 uses two words from the list at once;
- to use this neural network response as an exercise, it is necessary to modify it, which will take about 5 minutes (write the instructions, remove the words from the sentences if this is a task for filling in gaps), creating this task from scratch by the teacher requires from 15 to 20 minutes;
- the response can be used without any modifications for translation practice.

Prompt 2 (all the words had translation into Russian): Write an English task to fill in the missing words from the list: to commence, to view, to announce, appropriate, facet, to respond, cover letter, maple, heritage, considerable.

Response:

Fill in the missing words in the following sentences using the given words:

1. Before we _____ the meeting, let's take a look at the agenda.
2. I'm sure you'll find an _____ option for your vacation destination.
3. They _____ the launch of their new product in two weeks.
4. Every ___ of the project should be discussed in detail.
5. The committee will _____ to the public comments before making a decision.
6. Please attach a _____ letter with your job application.
7. The _____ tree is one of the most iconic symbols of Canada.
8. Protecting the environment is a part of our cultural _____.
9. The new business idea has _____ potential to become successful.

Repeated prompt 2 with a changed list of words (all the words had translation into Russian): Write an English task to fill in the missing words from the list: vague, grim, annual, to hone, to dazzle, delight, acquisition, to detach, to reinforce, to survey, bond

Response:

Exercise: Fill in the missing words from the list.

1. She gave a _____ speech at the graduation ceremony.
2. We need to _____ our skills in order to achieve our goals.
3. The _____ of this painting is very important.
4. It was a very _____ day with heavy rain and strong winds.
5. His work is known for _____ people's attention.
6. The company is in the process of making a large _____ .
7. Please _____ yourself and have a seat.
8. I need to _____ my presentation skills.
9. The new manager wants to _____ the team's communication skills.
10. The strong _____ between them made them great friends.

Analysis:

- words have already been deleted in sentences;

- the neural network does not list the words that need to be inserted;
- no key is given, it is difficult to give answers to some sentences in the repeated prompt;
- there are no grammatical errors, but since it is difficult to give answers to some sentences, it cannot be stated that semantic errors are also absent;
- not all words have been used, but some words are repeated;
- the instructions for the tasks are different;
- both responses require some modification, which will take about 5 minutes; developing this task from scratch takes from 15 to 20 minutes.

Prompt 3 (all the words had translation into Russian): Write an English task to fill in the missing words from the list, give the correct answers: vague, grim, annual, to hone, to dazzle, delight, acquisition, to detach, to reinforce, to survey, bond

Response:

Exercise: Fill in the blank with an appropriate word from the given list:

1. Her speech was very _____, nobody understood what she was trying to say. (Vague)

2. The weather report said that there would be a _____ storm tonight. (Grim)

3. Our company hosts an _____ party for all employees each year. (Annual)

4. I decided to _____ my writing skills by taking courses at night. (hone)

5. The diamond necklace really _____ her beauty. (dazzle)

6. Their latest _____ was to buy a new building for their expanding business. (Acquisition)

7. She tried to _____ herself from her problems by going on vacation. (detach)

8. We decided to _____ our marketing strategy by adding new social media platforms. (reinforce)

9. Before making any decisions, it's always best to _____ the situation carefully. (survey)

10. Their strong _____ helped them get through the tough times. (Bond)

Analysis:

- all the words have been used, but the word dazzle does not fit into the sentence neither grammatically nor lexically;
- the key is given, which makes it possible to quickly check the generated task for semantic errors;
- the list of words is not given;
- the task needs to be modified, which will take about 5 minutes, developing this task from scratch requires from 15 to 20 minutes.

Repeated prompt 3 with a changed list of words (all the words had translation into Russian): Write an English task to fill in the missing words from the list, give the correct answers: to commence, to view, to announce, to report, appropriate, facet, to respond, cover letter, maple, heritage, considerable.

Response:

Exercise: Fill in the appropriate word in each blank from the given words.

1. To commence, we would like to begin our appreciation for your interest in our organization.

2. To view, we have designed this website to display information about our company.

3. To announce, we are proud and pleased to say that we have received a major award.

4. Appropriate, we have created an appropriate package that we believe is perfect for you.

5. Facet, our new product line offers a wide range of features to meet your specific needs.

6. To respond, we will be happy to answer any questions or concerns you may have regarding our products.

7. Considerable, the importance of our new products has been well–received by customers.

8. Heritage, we take great pride in our past, which includes over 100 years of experience.

9. Maple, as you can see, we use the Maple tree as our symbol because it is a symbol of strength and endurance.

Analysis:

- despite the same prompt, with only the list of words changed, the generated tasks are different;
- sentences begin with words from the list (they are most likely given as the correct asnwer), but most sentences use synonyms, or they are not related to the word given at the beginning of the sentence at all;
- modification is required, which will take at least 10 minutes, the development of this task from scratch requires from 15 to 20 minutes.

2. Creating a test paper

During one semester, it is necessary to give students at least two ongoing tests and one final test, which should reflect all the material studied. As mentioned above, due to the difference in the level of knowledge, using one test for everyone reduces the effectiveness of control, including increased risks of cheating. An attempt was made to get a complete test paper from the neural network, which contains all the necessary parts.

Prompt 1: Make a test paper in English. It should contain the following sections: open brackets, translate a text from English, translate a text from Russian, answer questions. Grammar: Present Simple, Present Continuous, Past Simple, Past Continuous. Topics: hobbies, sports.

Response:

English language test

Section 1: Open the brackets (note: the sentences were given in Russian)

I. Translate the sentences into English.

1. I like to play football.

2. He always plays computer games after school.

3. Are you reading a book now?

4. They often go for a walk in the park.

5. We did not watch the movie yesterday.

II. Translate the following sentences into Russian (note: the sentences were given in English).

1. She always does her homework in the evening.

2. They are playing football at the moment.

3. I was reading a book when you called me.

4. She is walking with her dog in the park.

5. We will go to the cinema tomorrow.

Section 2*:* Answer the questions

Answer the questions about hobbies and sports (the questions were given in English).

1. What do you like to do in your free time?

2. Do you have any sports hobbies?

3. How often do you play sports?

4. What sport do you prefer?

5. Have you ever played any team sports?

Analysis:

- there is no task for opening brackets;
- there are no texts to translate;
- Present Perfect tense is used, which has not been mentioned in the prompt;
- this response can be used as a basis for a test, it takes at least 20 minutes to modify it and make into a proper test, and developing this task from scratch requires from 30 to 60 minutes.

Prompt 2: Make a test paper in English. Task 1: 7 sentences for the tenses Present Simple, Present Continuous, Past Simple, Past Continuous (open brackets). Task 2: Translate a text from English on the topic of hobbies. Task 3: answer 3 questions so that students can express their opinion about hobbies and St. Petersburg. Task 4: Translate 5 sentences from Russian on the topic of sports and traveling using comparative and superlative adjectives.

Response:

Task 1: Open the brackets using the verbs in the right tense (note: the sentences in this task were given in English).

I often (to go) to the gym to keep fit. 2) He (to play) football when he was young. 3) Right now they (to have) a football match. 4) They (to watch) the film when the power went out. 5) I (to read) a book when he called. 6) Next winter we (to ski) in the mountains. 7) She usually (to swim) in the pool on weekends.

Task 2: Translate into English (note: the text was given in Russian):

My hobby is traveling. I like exploring new places and discovering something new. When I have free time, I go on a trip. Last year I visited St. Petersburg. It is a very beautiful city with rich history and culture. I really enjoyed walking through its streets and enjoying the architecture. I also visited many sights such as the Hermitage and the Russian Museum. It was an unforgettable trip, and I hope to return there again soon.

Task 3: Answer the following questions (note: asked in English):

What is your favorite hobby?

Go on

Somehow I have frozen on this question. Ask me later, please.

Try again

Task 1: Open the brackets by using the verbs in the correct tense (sentences are given in English):

1. I often go to the gym to keep fit.

2. He played football when he was young.

3. Right now, they are having a football match.

4. They were watching the film when the power went out.

5. I was reading a book when he called.

6. Next winter, we will ski in the mountains.

7. She usually swims in the pool on weekends.

Task 2: Translate text into English (note: the text is given in English):

My hobby is travelling. I like to explore new places and discover something new. When I have free time, I go travelling. Last year, I visited St. Petersburg. It is a very beautiful city with a rich history and culture. I really enjoyed walking around its streets and admiring the architecture. I also visited many attractions, such as the Hermitage and the Russian Museum. It was an unforgettable journey, and I hope to come back there again soon.

Task 3: Answer 3 questions (note: asked in English and translated in Russian):

What is your favorite hobby?

Go on

(note: given in English and translated into Russian) Student's answer: My favorite hobby is photography.

Analysis:

- both attempts do not have all the necessary sections of a test paper;
- for some unknown reason, an example of a student's response with a translation is given;
- only part of this response can be used to create a test paper.

Prompt 3: Make a test paper for an English class. Task 1: 7 sentences for the tenses Present Simple, Present Continuous, Past Simple, Past Continuous (open brackets). Task 2: Translate a text from English on the topic of hobbies. Task 3: Answer 3 questions so that the students can express their opinion about sports and traveling. Task 4: Translate 5 sentences from Russian using comparative and superlative adjectives.

Response (given in English):

Task 1:

1. I often go to the gym.

2. I played football when I was young.

3. We are having a football match right now.

4. We were watching a film when it started raining.

5. I read a book while he was calling.

6. We will ski in the mountains next winter.

7. She is swimming in the pool right now.

Task 2:

My hobby is traveling. I enjoy exploring new places and discovering new things. When I have some free time, I usually go on a trip. Last year I visited St. Petersburg, which is a very beautiful city with rich history and unique culture. I truly enjoyed walking through its streets and observing its architecture. I visited many famous attractions, like the Hermitage Museum and the Russian Museum, which made my trip unforgettable. I hope to return to St. Petersburg soon.

Task 3:

What is your favourite hobby?

My favourite hobby is cooking.

Do you like travelling?

Yes, I do. I love travelling.

Are you interested in sports?

Yes, I am. I play football on weekends.

Analysis:

• the last task is not given;

• the questions in the third task are too simple, they need to be improved;

• it is possible to use only the first two tasks with some modification that will take about 5 minutes.

Due to the fact that the neural network failed to create a high-quality test, an attempt was made to assemble the test from separate parts generated by the neural network.

Prompt 4: 7 sentences for tenses Present Simple, Present Continuous, Past Simple, Past Continuous (open brackets).

Response (given in English):

1. I often go to the gym to keep fit. (Present Simple)

2. He played football when he was young. (Past Simple)

3. Right now, they are having a football match. (Present Continuous)

4. They were watching the film when the power went out. (Past Continuous)

5. I was reading a book when he called. (Past Continuous)

6. Next winter, we will ski in the mountains. (Future Simple)

7. She usually swims in the pool on weekends. (Present Simple).

Prompt 5: write a text in English of an intermediate level on the topic of hobbies

Response (given in English):

Hobby: Exploring the Great Outdoors on Weekend Getaways

Most people have a favorite pastime or hobby that they engage in during their leisure time. This can be anything from cooking to painting, or even playing an instrument. But for those who love to be outdoors and experience the great outdoors, a popular hobby is weekend getaways.

Weekend getaways are a great way to switch up your routine, relax, and explore new destinations. Whether you prefer a serene lakeside cabin, an urban escape, or a luxurious resort, there are plenty

of options to suit every taste and budget. The great thing about weekend getaways is that they can be as adventurous or laid–back as you want them to be.

For those who enjoy a bit of adventure, weekend getaways can be an opportunity to explore hiking trails, mountain biking, river rafting, and other outdoor activities. Many destinations offer guided tours that take you to remote areas and offer unique experiences. If you're looking for a more peaceful escape, a weekend getaway can also be spent simply enjoying the beauty of nature, walking along the beach, or visiting local wineries.

Prompt 6: answer 3 questions so that the students can express their opinion about sports and traveling.

Response (given in English):

1. Do you have any favorite sports teams?
2. What are your favorite hobbies?
3. How important do you think it is to travel and explore the world?

Prompt 8: Translate 5 sentences from Russian using comparative and superlative adjectives

Response (given in Russian and then translated into English):

1. St. Petersburg is the most beautiful city in Russia.
2. The Volga is the longest river in Europe.
3. The Hermitage is one of the most famous museums in the world.
4. Russian is one of the hardest languages in the world.
5. This movie is more interesting than that one.
6. This building is the tallest in the city.
7. His work is the most important on the team.

Repeated prompts for each of the sections gave similar responses.

Analysis:

- the responses contain elements that were not in the prompt (additional sentences);
- the text level in the response to prompt 5 is above intermediate, although the intermediate level is indicated in the prompt;
- it is possible to compile a test from the responses given by the neural network with modifications that will take no more than 10 minutes, developing this task from scratch requires from 30 to 60 minutes.

Test papers and tasks were successfully created from the responses of the neural network to reinforce vocabulary and grammar, which were used to carry out ongoing control in 5 English language groups. Two versions of each test paper made it possible to avoid the risk of responses being copied by students sitting next to each other.

DISCUSSIONS

In this study, we approached the issue of using artificial intelligence from the point of gradual digitalization of education, that is, not a complete transition to learning using neural networks, but firstly the development of traditional tasks using neural networks. A similar point of view, that is, caution regarding the digitalization of education, is reflected in a number of studies, for example, in the study by H. Davis and his colleagues [37], which states that an overly active introduction of artificial intelligence

into the field of education creates a number of problems, and in the study of E.V. Vesetiu and N.B. Romayeva that emphasizes the need to take precautions when working with neural networks [26].

Unlike researchers who use neural networks directly to monitor student knowledge, for example, to evaluate written assignments [1], we examined the effectiveness of using a neural network to develop traditional tasks for ongoing control.

And although researchers most often consider the use of artificial intelligence and neural networks by students, for example, A.S. Bukin [7], we have studied the possibility of using neural networks by teachers, which is also relevant and reflected, for example, in the study of B. Moorhouse and L. Konke [2].

During this experiment, the hypothesis was confirmed that neural network is an effective tool for preparing materials for the ongoing control of student knowledge, which significantly reduces the time spent on developing materials.

Based on the results of the analysis of the neural network responses to the prompts given earlier, the following conclusions can be made:

- most of the responses that the neural network gives can be used to create tasks for the ongoing control of student knowledge;
- almost all responses (except for sentence translation) need to be modified, this work takes from 5 to 10 minutes;
- even taking into account the modification of the neural network responses, obtaining finished materials for the ongoing control of student knowledge takes two or three times less time than developing materials from scratch/searching for materials on the Internet or in textbooks;
- during the study, it was not possible to create such a prompt that would lead to a complete test paper, but the neural network can successfully generate parts of the test paper (grammar tasks, questions, texts and sentences for translation);
- when developing tasks using a neural network, it is possible to quickly create several variants;
- even when using the same prompts or prompts in which only certain parameters (words, grammar) have been changed, it is not always possible to get the same response.

The study was conducted for only one semester and only materials for ongoing control were studied, but the data obtained can be used to develop other types of materials, for example, exercises on grammar, translation and vocabulary.

Based on the results of the experiment, the authors concluded that the YandexGPT 2 neural network is recommended for use as a tool to help create tasks for the ongoing control of students, but the responses of the neural network require modification on the part of the teacher.

Although at this stage of the study it was not possible to create prompts that would give the same response when changing only certain parameters (grammar, vocabulary), the neural network significantly simplified the process of developing materials for the ongoing control of student knowledge throughout the semester, made it possible to quickly create several task and test paper variants, taking into account the level of student knowledge, while without the use of neural networks, it is possible to create only one variant over the same period of time. The research will be continued next semester, as neural networks are constantly changing and thus there is a need for constant study of their new capabilities.

CONCLUSION

The field of education should develop in accordance with modern realities and technological advances. Teaching English plays an important role in the training of highly qualified specialists, therefore it is necessary to use all available tools to teach it. One of these tools is artificial intelligence and, in particular, neural networks.

Digitalization of education is going slowly, and traditional teaching methods are still in demand. Despite the availability of research on the introduction of artificial intelligence directly into the learning process, the process of improving the quality of the development of traditional educational materials using modern technologies remains poorly researched.

This study showed that using neural networks to create materials for ongoing control significantly reduces the time spent on their development and makes it possible to create several variants adapted to each group of students, which improves their quality. The conclusions drawn from the results of this research can be used to develop other types of educational materials.

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