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SUN'IIY INTELLEKT (AI) VOSITALARI O'QISH JARAYONINI QANDAY QO'LLAB-QUVVATLASHINI O'RGANISH

Annotatsiya

Ushbu maqola turli ta'lim kontekstlarida o'qish jarayonini qo'llab-quvvatlash va yaxshilash uchun sun'iy intellekt (SI) vositalarining imkoniyatlarini o'rganadi. SI texnologiyalarining jadal rivojlanishi bilan ushbu vositalar o'qishni tushunish, ishtirok etish va savodxonlikni rivojlantirishga qanday yordam berishiga qiziqish ortib bormoqda. Maqolada tilni qayta ishlash, moslashtirilgan o'qish tavsiyalari va interaktiv o'quv muhitlari kabi sun'iy intellektga asoslangan turli xil ilovalar ko'rib chiqiladi. Mavjud adabiyotlar va amaliy tadqiqotlarni sifatli tahlil qilish orqali biz samarali o'qish strategiyalarini targ'ib qilishda SI vositalarining kuchli va cheklovlarini ta'kidlaymiz.

Kalit so'zlar: sun'iy intellekt (SI), o'qishni tushunish, jalb qilish, savodxonlikni rivojlantirish, SI vositalari.

ИЗУЧЕНИЕ КАК ИНСТРУМЕНТЫ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА (ИИ) ПОДДЕРЖИВАЕТ ПРОЦЕСС ЧТЕНИЯ

Аннотация

В этой статье рассматривается потенциал инструментов искусственного интеллекта (ИИ) для поддержки и улучшения процесса чтения в различных образовательных контекстах. С быстрым развитием технологий ИИ растет интерес к тому, как эти инструменты могут способствовать пониманию прочитанного, вовлеченности и развитию грамотности. В статье рассматриваются различные приложения на основе ИИ, такие как обработка естественного языка, персонализированные рекомендации по чтению и интерактивные среды обучения. С помощью качественного анализа существующей литературы и тематических исследований мы выделяем сильные и слабые стороны инструментов ИИ в продвижении эффективных стратегий чтения.

Ключевые слова: искусственный интеллект (ИИ), понимание прочитанного, вовлеченность, развитие грамотности, инструменты ИИ.

EXPLORING HOW ARTIFICIAL INTELLIGENCE (AI) TOOLS SUPPORTS THE READING PROCESS

Annotation

This article explores the potential of artificial intelligence (AI) tools to support and enhance the reading process across diverse educational contexts. With the rapid advancement of AI technologies, there is an increasing interest in how these tools can facilitate reading comprehension, engagement, and literacy development. The article reviews various AI-driven applications, such as natural language processing, personalized reading recommendations, and interactive learning environments. Through a qualitative analysis of existing literature and case studies, we highlight the strengths and limitations of AI tools in promoting effective reading strategies.

Key words: artificial intelligence (AI), reading comprehension, engagement, literacy development, AI tools.

Introduction. Through the act of reading, we gain meaning, understanding, and knowledge. We also make connections between texts, ourselves, and the world. Reading is an activity that will continue to shape us throughout our lives—in school, on the job, and in our daily lives as members of a literate society.

While reading might not be the first skill that people think of when they talk about generative AI tools—like Chat GPT, Google's Gemini (formerly Google Bard), Claude, or Microsoft Copilot—the reading process can be enhanced by these new tools.

This impact may look different depending on the age of the learner. For younger students who are not yet allowed to use these tools, the teacher can model and lead the full class or a small group of students through the experiences, soliciting questions and ideas from them, and entering those ideas into the AI tool. In this way, students can participate by providing input, observing responses, and engaging in discussion about those results. They can even prompt the follow-up questions

being asked; they just won't be the ones actually doing the typing [1].

If you are teaching older students who can use these tools, you might still consider modeling at first, but students can eventually engage with the AI themselves. Whatever your situation, there are effective ways to leverage AI throughout the reading process.

Generative AI can be used during the pre-reading phase of the reading process to prepare students and set them up for a successful reading experience. To make the AI interaction most beneficial, the student or teacher should have access to a digital version of the text to be read. This provides the opportunity to copy and paste the text into the AI program, which allows the tool to know specifically what is being referenced and discussed. If it is a famous piece of writing, like Martin Luther King Jr.'s "I Have a Dream" speech or a play by William Shakespeare, the AI will likely be able to gather quite a bit of context from its databases, but for less well-known texts, it will be important to be able to feed it into the AI [2].

For example, students may be getting ready to read the short story *The Lottery* by Shirley Jackson. One way you could use AI in the pre-reading stage would be to gain some historical context for the story. That type of context will often help the reader better understand the setting, actions, and dialogue in the story. When the question "What historical context should I be aware of before reading *The Lottery*?" was entered into Chat GPT, the AI returned a list of seven helpful contextual points of which a student would likely not yet be aware. Some of these included a description of the time period the story was written, the political and cultural climate at the time, and a brief note about the controversy that surrounded the story when it was released. These points can help pique a student's curiosity and set them up for a better understanding of what they are going to read [7].

Another pre-reading strategy is to have the AI help identify key vocabulary that might be challenging yet critical to understanding the text. For *The Lottery* example, you could paste in the text of the story and then ask a question, such as, "What are some key vocabulary words from this excerpt of Shirley Jackson's story that a reader must understand?" In response to this particular prompt, Chat GPT returned a list of 11 terms that were key to the text and brief definitions of the terms in the context of the story. If you didn't want your students to be given the definitions, you could instruct the AI to simply provide the terms without definitions. For *The Lottery*, the list included relevant words like "civic" and "tradition," which are central to the story's theme.

One more pre-reading strategy that you could use, especially with nonfiction texts, is to paste in the text from the article or document and then ask Chat GPT, or your generative AI tool of choice, to provide a brief summary. You could even tell it to limit the summary to three sentences to ensure that it's kept short. This initial summary can provide students with a valuable overview and preview of the content. This can set the reader up for success and help improve comprehension. This approach is a little bit like scanning an article ahead of time to get the general idea of what is to come, which can be especially helpful if the text is complex or technical. If you're reading as part of the research process, it can even inform whether or not you should take the time to read the article. The brief summary might quickly let you know if it's even relevant to your larger research.

Analysis of literature on the topic

During the actual reading of the text, readers can also use generative AI as a reading partner. This might take a little practice, complete with trial and error, in order to get the most beneficial results. However, it can be a rich experience once you get comfortable with it [8].

One basic way to use AI to coach a reader through the reading process is to ask for a list of questions related to the content of the text. While it can be especially powerful to have students generate their own questions, there is a place for having the AI assist with this as well, especially as a scaffold for students who are struggling in this area or as a way to save time. If you do have students generate their own questions, you might have them paste in their list of questions and then ask the AI to identify additional key questions that they may have missed. To do this, have your students start by pasting in their own questions and then have them add the following at the end of the prompt: "These are the questions I have about this text. What am I missing? What else should I be asking in order to better understand this text?" This process allows the students to generate their own questions first and then prompts the AI to provide feedback on their work.

Students could even ask the AI to evaluate the quality of the questions they submitted and perhaps identify the best ones. Students could then discuss if they agree with the AI's opinion. In a similar fashion, students could submit their

thoughts on some aspect of the text and ask the AI for feedback. For instance, they might submit their understanding of the main point being made in the text and then ask the AI, "Do you agree with me? Why or why not? What are my blind spots?"

Another strategy is to offer the AI your own thoughts or interpretations about the text and then direct the AI to ask you a follow-up question to continue the conversation and probe deeper into the meaning of the text. In this way, the AI is not doing all the work for you. Instead, it's helping you think more deeply in processing the text.

This type of conversation about *The Lottery* with Chat GPT went like this. A student entered:

"I wonder if the students in the story know why they are even gathering stones. Since children are often berated for throwing stones, it might feel ominous that they are gathering them. What do you think? Please ask me a follow-up question to keep the conversation going."

As a response, Chat GPT returned:

"That's an insightful observation about the children gathering stones in *The Lottery*. It indeed presents an ominous undercurrent, especially given the normal rules of behavior for children. Considering this, how do you interpret the adults' reaction (or lack thereof) to this activity? Does their response, or absence of one, give you any clues about the nature of the lottery and the community's attitude towards this tradition?"

This type of back-and-forth engagement with the AI can lead to some valuable, deep thinking and processing. It's essentially like having a conversation about the literature with a thought partner – in this case, the AI.

Research method

Once a student has reached the end of the text, some of the same strategies that were used during the reading can be applied again. They could ask the AI for a list of probing questions to help them consider the deeper meaning of the text. Then, one at a time, they could submit a response to one of the questions and either ask the AI to pose a follow-up question or identify potential gaps and flaws in their logic.

For some students, it may be safer to begin having this type of conversation with a computer algorithm than a peer, as a computer might feel less judgmental or personal. Of course, it's still crucial that students graduate to peer-to-peer interactions at some point. Still, AI can be used as a scaffold.

Another strategy that can be very engaging is to prompt the AI to have a debate with you about a key point or controversial issue in the text. To do this, it's important to tell the AI that you wish to engage in a friendly debate about the text. You should tell the AI which position it will take, what your position is, and then instruct it to end each response by asking a follow-up question to help continue the conversation.

Students can engage in a similar give-and-take process with educational AI platforms, like Khanmigo, which use generative AI to allow students to have virtual conversations with authors and historical figures. This can be a fun way for students to internalize the content they've read and take it to the next level.

For readers who struggle with decoding words, text-to-speech tools, like Speechify, can unlock the text for students and allow them to access the content. Not only can this help them in school, but it can be an important life skill for struggling readers.

Generative AI can often translate content quite well into a student's primary language. If the content and not the act of reading in English is the goal, this strategy can help students get to the content and not be left behind in the learning process.

Analysis and results

Finally, AI can rewrite text at different reading levels. It's common to see adults take a complex piece of text and ask

AI to explain it to them as if they were a fifth grader. This also works well for students and is one way to make sure that they all have access to the academic concepts in the text. This foundation of knowledge will help them actively engage in the learning and the conversations about that content.

Generative AI can often translate content quite well into a student's primary language. If the content and not the act of reading in English is the goal, this strategy can help students get to the content and not be left behind in the learning process. Finally, AI can rewrite text at different reading levels.

The presence of AI technology is a breakthrough in the field of education to facilitate learning and can foster independence, it does not have to depend on the role of a teacher who is too dominant, but teachers can shift to a level that provides enlightenment with substantial keywords and more importantly, must be returned to the essential teaching is moral education that must be maintained. Changes in the demands of education require innovation and creativity in the learning process. With the development of artificial intelligence in the field of education to help process daily activities including teaching and learning.

Therefore, the teacher's intelligence is unmatched as the natural teacher's intelligence that has been bestowed by the creator. However, a gift needs to be maintained properly and optimally. Artificial intelligence that emerged as the industrial revolution is also the result of the creative minds of human natural intelligence. So that, when compared, between the two will never have an equal position. Precisely artificial intelligence can collaborate with natural intelligence to become a perfect whole. In the future progress of science and technology, teacher work such as correcting, student attendance, giving daily tests and exams, explaining knowledge, making administrative reports and other systemic

work can be submitted to be completed by technology devices. Teachers can save more energy and can focus more on non-systemic work to create a golden generation with more character and quality with natural intelligence where robots cannot.

Conclusion and suggestions. In conclusion, the integration of artificial intelligence tools into the reading process presents a transformative opportunity to enhance literacy and comprehension across diverse populations. By offering personalized learning experiences, adaptive feedback, and access to a wealth of resources, AI can empower readers to engage with texts more effectively than ever before. These tools not only accommodate varying reading levels and styles but also foster a deeper appreciation for literature and knowledge. As we continue to explore the potential of AI in educational settings, it is crucial to maintain a focus on ethical considerations, ensuring that these technologies serve to support, rather than replace, the fundamental aspects of human interaction and critical thinking in the reading process. Embracing AI as a complementary resource can pave the way for more inclusive, informed, and engaged readers, ultimately enriching the landscape of learning and literacy in the digital age.

The existence of artificial intelligence may be able to provide knowledge to students, but developing character cannot be done. That is an educator's job. How to inspire, motivate, make students become good students." So the role of the teacher in providing motivation, inspiration, and developing character are what AI cannot replace because AI is not given feelings and emotions like humans in general. In the end, if we look at technological developments, we must be able to adapt as technology advances. If we do not adjust, we are an educator (teacher/lecturer) may be replaced by technology.

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