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## ARTIFICIAL INTELLIGENCE IN THE DEVELOPMENT OF STUDENTS' CREATIVE SKILLS

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## Introduction

Artificial intelligence (AI) has already become an integral part of various spheres of life, including education. It transforms the usual teaching methods, creating new opportunities for students. The development of students' creative skills becomes a key factor determining their future success. The introduction of AI technologies into the educational process opens the door to new approaches to learning that contribute to a more effective and deeper understanding of the material. Artificial intelligence has become an important tool in the development of creativity. In areas such as musical creativity, visual arts, literature and innovative ideas, AI shows its potential by enriching creative processes. Students get access to tools and resources that not only help them in the creative process, but also allow them to expand the boundaries of what they can create. Artificial intelligence has the ability to analyze huge amounts of data and identify hidden patterns in them. This represents a huge advantage for stimulating creative thinking among students. Machine learning algorithms identify common themes, find connections between different ideas and offer new approaches to solving problems. Such opportunities become a source of inspiration for students, helping them to perceive problems from different angles and generate new, innovative ideas. Artificial intelligence systems are able to adapt educational materials to the individual needs of students. By analyzing responses to assignments and lessons, learning systems can assess the level of understanding of the material and offer educational content that will be most effective and interesting for each student. This also includes creating tasks and projects that contribute to the development of their creative abilities. This approach provides more flexible and personalized learning, combining the development of creativity with the effectiveness of learning.

Let's consider examples of the possibilities of artificial intelligence in education for the development of students' creativity:

- 1. Musical creativity:
- Creation of musical compositions, generation of melodies, arrangements and creation of new sound textures. Programs like Magenta or Artificial Intelligence Virtual Artist (AIVA) use neural networks to create new music, which can be a source of inspiration for musicians.

- Offering different versions of musical ideas based on previous works or preferences. This will allow you to experiment with new sounds, styles and compositional techniques.
- Identification of patterns, structures and features of various genres through the analysis of large amounts of data. This will help to understand styles and trends in music, which can be used to create innovative musical works.
- Offer personalized music lessons and educational materials depending on the level of skills and preferences of the student. This will contribute to more effective learning and helps to develop the creativity of each student in accordance with his needs.
- Audio processing, improving the quality of audio recordings and creating new sound effects. This will allow you to experiment with sound and add innovative elements to your compositions.
- 2. Visual art:
- Experimenting with the generation of new visual images based on set parameters using programs such as DeepArt, Midjourney, Leonardo.Ai and Runway ML.
- Offer concepts, styles or themes that can be a starting point for creating new works.
- Automation of routine technical tasks, such as color correction, image processing or sketching. This will free up students' time for more creative and experimental processes.
- Analyze students' work and provide feedback on their work. This may include evaluating composition, the use of color, style, and other aspects of art, helping students understand and improve their skills.
- 3. Literary creativity:
- Text generation, assistance in writing novels, poems or creating scripts. Programs such as GPT-3 are capable of generating texts that mimic the style and structure of literary works. This can be used to offer students new themes, plots, or styles for their own creativity.
- AI systems are able to analyze and edit texts, offering alternative versions of phrases, improving grammar, sentence structure and writing style. Students will be able to improve their writing and editing skills.
- Text analysis allows us to identify narrative structures, characteristic features of various genres and writers. Students will be able to study this data to understand what methods and styles were used in different literary works.
- AI can offer students personalized recommendations on their literary preferences and writing style. Such systems can provide feedback on students' creative work, helping them to improve their style and approach to writing.

• Creation of interactive literary works where the reader can influence the development of the plot or characters. This will stimulate students' interest in creativity and experimentation with non-standard narrative formats.

It is important to take into account both the advantages and disadvantages of using artificial intelligence systems by a student in the development of creativity. Let's look at them in more detail:

- 1. Advantages:
- Tailored Learning: AI systems excel in offering personalized assignments and exercises. They analyze individual learning patterns and preferences, catering to the unique needs of each student. This personalized approach fosters a conducive environment for nurturing creativity as it acknowledges and adapts to diverse learning styles.
- Enhanced Accessibility: The integration of AI in education extends the reach of learning beyond conventional boundaries. Online platforms powered by AI technology provide access to educational resources and opportunities that might otherwise be inaccessible. This widened access serves as a catalyst for creativity, allowing students from varied backgrounds to explore and learn at their own pace.
- Inspiration and Innovation: AI's ability to simulate scenarios, generate ideas, and present information in novel ways stimulates students' inspiration. Exposure to AI-driven tools and methodologies can spark creativity by encouraging them to explore unconventional solutions, fostering innovative thinking and problem-solving skills.
- 2. Disadvantages:
- Overdependence on AI: Excessive reliance on AI for generating solutions and problem-solving may inhibit the development of independent creative thinking. Relying solely on AI guidance might restrict students' exploration and experimentation, potentially impeding their ability to think critically and creatively.
- Ethical Concerns and Transparency: Integrating AI in education raises pertinent questions regarding data transparency, privacy, and the ethical implications of the solutions offered. There's a need for vigilance in ensuring that AI-generated content aligns with ethical standards and diverse perspectives. Without proper oversight, AI might inadvertently propagate biased or incomplete information, hindering the development of a well-rounded creative mindset.

# Conclusion

Artificial intelligence has a huge potential for developing students' creative skills. It is able to stimulate creative thinking and provide new tools for self-expression. However, it is important to use it wisely, ensuring a balance between its use and the development of students' independent creativity skills.

The use of AI in education is not just the introduction of technology, but also the creation of conditions for the growth and development of students as creative personalities.

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