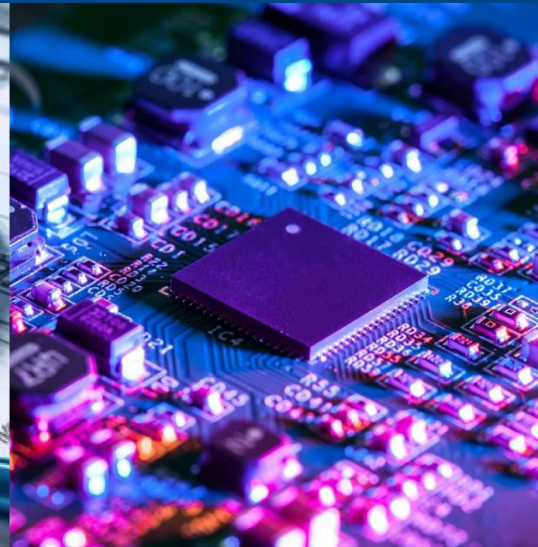
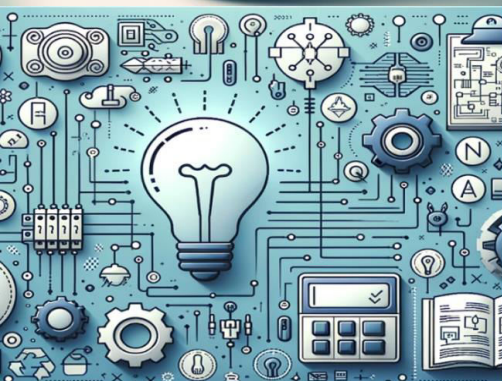




International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 9.864

Volume 9, Issue 9, September 2026



International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Artificial Intelligence and School-Going Children: Benefits, Risks and Responsible Use

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ABSTRACT: Artificial Intelligence (AI) is rapidly becoming a part of everyday life, including school education. School-going children increasingly use AI-based tools for learning, finding information, solving problems, generating ideas and improving their writing. However, its increasing use also raises concerns related to excessive dependence, inaccurate information, privacy and reduced critical thinking. This review discusses the major benefits and potential risks of AI for school-going children and highlights the importance of responsible use of AI. The role of parents, teachers and schools is also important in ensuring that AI supports learning rather than replacing a child's own thinking and creativity.

KEYWORDS: Artificial Intelligence, education, learning, school children, technology

I. INTRODUCTION

Artificial Intelligence refers to computer systems that can perform tasks that normally require human intelligence, such as understanding language, recognizing patterns, solving problems and generating information. In recent years, AI tools have become easily available to students through smartphones, computers and educational applications [1].

For school-going children, AI can be useful for explaining difficult topics, answering questions, generating examples, helping with language learning and providing personalized learning support. At the same time, the use of AI by children has created concerns about whether students may become too dependent on technology or use it to complete schoolwork without understanding the subject.[2]

II. BENEFITS OF AI FOR SCHOOL-GOING CHILDREN

A. Personalized Learning

The biggest advantage of AI is its ability to provide learning support according to an individual student's needs. Students can ask questions repeatedly, request simpler explanations or obtain additional examples. This may be particularly useful for students who need more time to understand a particular concept.[3]

B. Help with Difficult Subjects

AI tools can explain mathematical problems, scientific concepts, grammar and other subjects in different ways. For example, a student who finds a textbook explanation difficult may ask an AI system to explain the same concept using a simple example. However, students should use such explanations to understand concepts rather than simply copying answers.[4]



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C. Language and Writing Support

AI can help students improve grammar, vocabulary, sentence structure and communication skills. It can also suggest ideas for essays, presentations and projects. For students learning foreign languages as an additional language, such tools can provide useful practice and feedback.[5]

D. Creativity and Ideas

AI can help students brainstorm ideas for science projects, stories, presentations and other creative activities. It can provide different perspectives and encourage students to explore topics that interest them. The final work, however, should reflect the student's own understanding and creativity.

E. Accessibility

AI may also support children with different learning needs. Text-to-speech, speech-to-text, translation and other AI-supported technologies can make educational material easier to access. This may help create a more inclusive learning environment.

III. RISKS AND CHALLENGES

A. Dependence on AI

One of the major risks is excessive dependence. If students ask AI to solve every problem, they may gradually lose opportunities to develop their own problem-solving and reasoning skills. This may eventually reduce the critical thinking powers of the student.[6]

B. Inaccurate Information

AI systems can sometimes provide incorrect or misleading information. This is particularly important for school students, who may not always have enough knowledge to identify an error. Students should therefore verify important information using textbooks, teachers and reliable sources.[7]

C. Academic Dishonesty

AI can make it easy for students to generate essays, assignments and answers without doing the actual work. Submitting AI-generated work as one's own may reduce genuine learning and can be considered academically dishonest. AI should thus be used as an adjunct to support learning, not to avoid learning.

D. Reduced Critical Thinking

If students accept AI-generated answers without questioning them, their ability to analyze information independently may be affected. Children should be encouraged to ask questions such as: Is this information correct? What is the evidence? Are there other explanations? This eventually helps in the overall development of the student.[8]

E. Privacy and Online Safety

AI applications may involve the collection or processing of user information. Children may not always understand what personal information should or should not be shared online. Students should avoid entering sensitive personal information, passwords, personal photographs or other confidential details into AI systems. Parents and schools should teach children about digital privacy and online safety.[9]

F. Reduced Human Interaction

Education also involves communication with teachers, classmates, friends and family. Excessive screen time and dependence on digital tools may reduce face-to-face interaction and other important activities such as sports, hobbies and outdoor play. This may lead to reduced social presence of a student which may put the student actually on a back foot when it comes to facing the real world. [10]

IV. RESPONSIBLE USE OF AI

The benefits of AI can be maximized when it is used responsibly. A simple principle for school students is 'Use AI to learn, not to avoid learning.' Students can use AI to understand difficult concepts; generate questions for practice; receive feedback on their writing; brainstorm ideas; practice languages; and explore topics beyond the classroom.



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At the same time, they should independently solve problems, read books, conduct experiments, discuss ideas with teachers and verify important information. AI-generated information should be treated as a starting point rather than an unquestionable source of truth.

V. ROLE OF PARENTS AND TEACHERS

Parents and teachers have an important role in helping children develop healthy AI habits. Instead of completely banning AI, they can teach children how to use it appropriately.

Schools can establish clear guidelines regarding when AI can be used for assignments and when students are expected to work independently. Teachers can also design activities that require personal understanding, discussion, practical work and original thinking.

Parents can encourage balanced technology use by ensuring that children also spend time studying independently, participating in sports, developing hobbies and interacting with family and friends.

VI. CONCLUSION

Artificial Intelligence has the potential to significantly support the education of school-going children. It can provide personalized explanations, assist with language learning, encourage creativity and make educational resources more accessible. However, its benefits are accompanied by risks such as excessive dependence, inaccurate information, academic dishonesty, privacy concerns and reduced critical thinking.

The most important issue is therefore not whether children should use AI, but how they use it. AI should complement teachers and traditional learning rather than replace them. With proper guidance from parents and teachers, AI can become a useful educational tool while allowing children to develop the independent thinking, creativity, communication and problem-solving skills that are essential for their future.

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