

ChatGPT as an instrument for enhancement of learners' interest in undergraduate mathematics

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Panta Rhei" (Heraclitus)
Nothing is constant but change.

We are facing reality where Tradition welcomes Technology and Technology congratulates Tradition. Both can help overcome weak points in mathematics education and in learners' resulting mathematics knowledge and skills.

ChatGPT has at disposal great amount of knowledge, paradigms and experience of the humanity. The software "behind" the ChatGPT makes it possible to extract the necessary portions of existing information and provides in a noticeable way answers of questions and solutions of problems. It is quite understandable why one can trust ChatGPT competency. Obviously we have not to compete with ChatGPT but to collaborate and cooperate effectively with ChatGPT in order to facilitate the teaching and learning of mathematics.

It is important to consider the balance between application of generative AI in real educational process and the human experience without application of AI. In case of mathematics education it is necessary.

AI is a good opportunity to give new life of our good old approaches to facilitate learning theoretical facts and solving problems effectively. Up to now they are described only in learning resources like textbooks. Through ChatGPT they will be available to a larger audience.

As the answer of existing versions of ChatGPT depends on the preciseness of the question, it is necessary to enhance learners' capability. And to achieve this, learners' comprehension of knowledge is decisive. ChatGPT environment could be combined with CAS (Computer Algebra System) environment. The synergy effect of this could be valuable.

Learning outcomes, educational goals, exam questions and assessment of learners' knowledge and capabilities in doing mathematics are to be reconsidered in case of ChatGPT environment.

Examples from undergraduate mathematics are considered.