Looking back and ahead – didactical implications for the use of digital technologies in the next decade.


Summary: Advantages and disadvantages of the use of digital technologies (DT) and especially of computer algebra systems in mathematics lessons are discussed controversially worldwide. What will be the impact of DT in the next years or even the next decade? The basis of the following considerations is the long-term empirical project M$^3$ (model-project new media in mathematics lessons) which was started 10 years ago in 2003 to test the use of symbolic calculators (SC) in Bavarian grammar schools in Germany. In 2013, there exists extensive experience regarding the use of SC from grade 10 to 12 in classroom activities, student and teacher documents as well as test and examination results of students. The implications of this project are going to be collected in 10 theses or hypotheses about possible, beneficial developments in the future. These theses will be explained with examples taken from the project M$^3$. They are addressed to mathematics teachers and mathematics educators, to people who are interested in the on-going development of the use of DT concerning a better understanding of mathematics.

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