Multimedia Design and Mathematical Understanding

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Modern multimedia techniques have the capacity for supporting the process of understanding mathematical concepts in a novel way. The deepest impact of electronic media on mathematics education is to enable students to construct abstract concepts by their own activities. This does not necessarily imply lengthy step-by-step projects for every mathematical notion. In particular, it is possible to get acquainted with some of the central mathematical ideas in a relatively direct and easy way.

This approach is illustrated by relying on maths online, a project residing at the University of Vienna whose goal is the creation of a coherent online program suitable for school teaching and self-learning, covering a range of six years mathematics education. Its web site

http://www.univie.ac.at/future.media/moe/

is freely accessible. Using examples out of this program, it is argued that even details of the mathematical setup and the user interface design may be crucial for the success of multimedia learning tools.