962-C1-1439 **Matthias Kawski*** (kawski@asu.edu), Department of Mathematics, Arizona State University, Tempe, AZ 85287-1804, U.S.A.. *Interactive Visualization across the Curriculum.*

We demonstrate how modern technology, and, in particular, the WWW suggests radically different approaches to teaching a wide array of undergraduate mathematics courses. The focus is on comparing different ways and different technologies that provide the means for interactive visualization, and their (dis)advantages for promoting an inquiry-based approach to learning and instruction. We provide examples from linear algebra, vector calculus, partial differential equations, differential geometry and complex analysis. In each case we discuss the relative merits of using e.g. computer algebra systems that allow one to change everything as opposed to e.g. almost video-like demonstrations. Of special interest are JAVA-based tools that combine ubiquitous access, commonly minimal start-up costs and large flexibility for true, but guided experimentation. The development of such tools has become much easier with advanced programming tools and using modular approaches, including JAVA-beans. (Received October 12, 2000)