

AUGMENTED EDUCATION

INVEST IN YOUR STUDENTS, INVEST IN AR

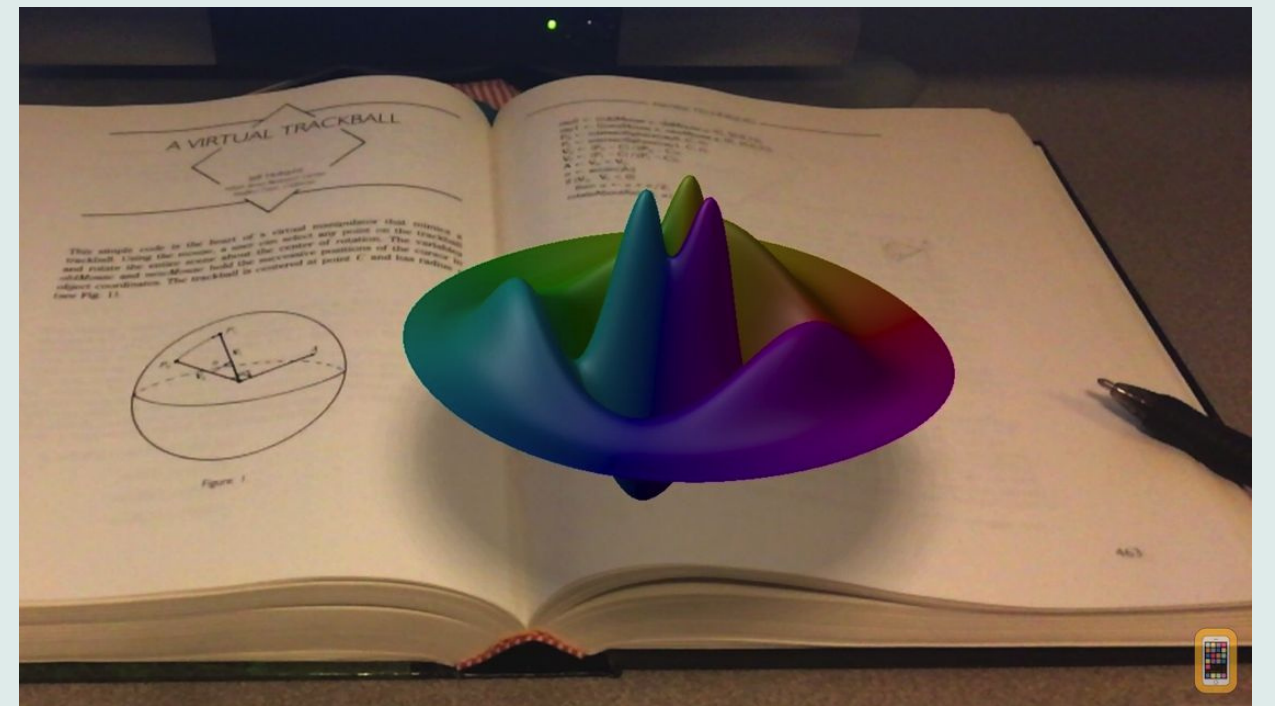
Technology is steamrolling forward at a blazing pace yet the field of education is being left in the dust. With an ever increasing array of distractions literally at our fingertips, educators need to adapt to capture student interest and nurture academic passion. The emerging field of Augmented Reality (AR) technology is well suited to revolutionize the classroom; AR technology allows the user to seamlessly interweave digital media with their field of vision. In an AR equipped classroom, students would be able to visualize and interact with 3D diagrams and models rather than plain textbooks and projected slides. Instead of being passive learners, students could actively interact with and shape their learning environment.

USER MANUAL



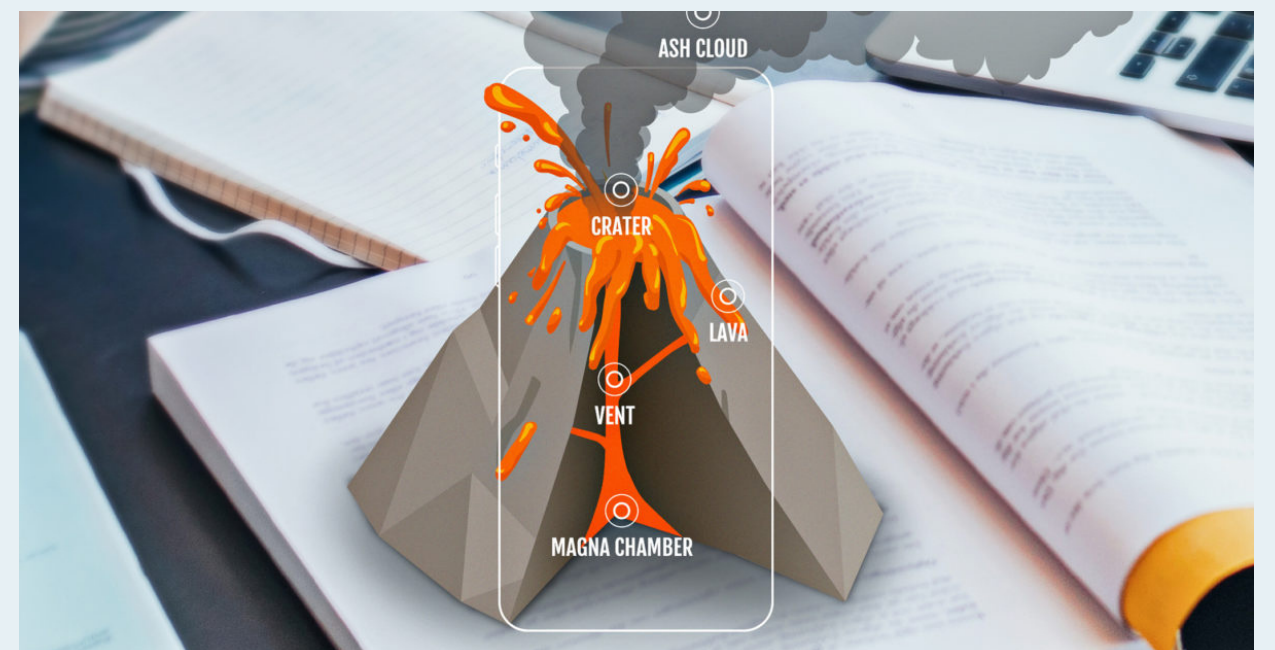
Math

Mathematics instruction is predominantly taught in an abstract manner. Students are expected to grasp complex mathematical concepts through whiteboard lessons and exercise sheets. Visualization and interaction are key components of achieving deeper understanding, yet they're almost entirely ignored in current mathematics courses. AR technology would allow for intuitive visualization of complex mathematic topics such as linear algebra, vector geometry and trigonometry. Augmented Reality technology would afford more engaging math instruction, improved comprehension and better student performance, as shown in numerous studies.



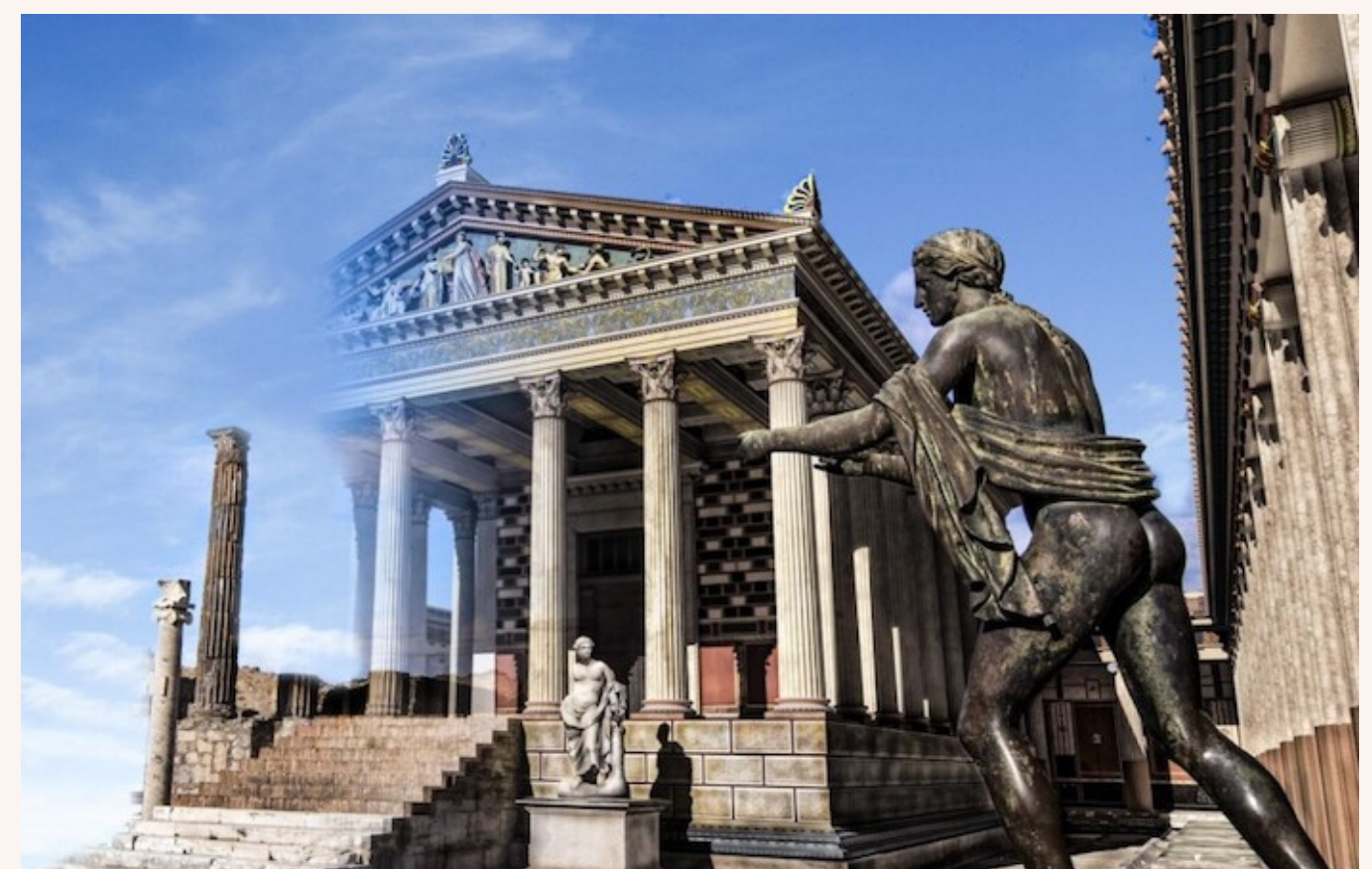
Science

Science is another field of education which would stand to benefit heavily from AR technology. Most science instruction is taught through dull textbook readings and hands on lab experiments. The problem with science instruction is that classroom experiments are constrained by safety, limited scale and resources. Using AR glasses, students could visualize complex scientific models in three dimensions, and simulate experiments which would not be doable in a typical classroom. As shown in studies, AR is the "optimal tool" for teaching abstract material which can't be directly observed through typical lab experiments.



History

History is perhaps the most exciting application of AR technology to the classroom. History classes typically rely on written accounts and artifacts to get a sense of what life was like in the past. Imagine instead being able to explore an ancient Persian bazaar through the lens of your glasses. Further, historical artifacts could be brought to life in the classroom. With AR technology, students could interact with primary sources in a completely novel way. Picture being able to explore the decks of a viking longship or the cockpit of a World War II spitfire from the comfort of your classroom. Historic battles could be simulated on the surface of the teacher's table. Research supports the notion that AR experiences in the history classroom can enhance learning of historical events, places and cultures. History would no longer be about relearning past events, it would be reliving them.



Sources

- Augmented Reality in Science Education: An Application in Higher Education
- On the Potential of Augmented Reality for Mathematics Teaching with the Application Clearmaths
- Revolutionizing History Education: Using Augmented Reality Games to Teach History