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Short Communication

Augmented Reality for a Lively Learning Experience

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These days 80% of younger people own smartphones or tablets. The majority of them use it to get to social media, play games, and be in association with their companions and relatives. While the minorities use their phones or tablets in studying, to do schoolwork or to search for further information about one of the subjects they take. Integrating smartphones and tables with Augmented Reality (AR) enhances the educational process as AR can provide extra digital content for any subject that has some difficulties in understanding.

AR tools help students to get engaged with educational materials and create their own content which will promote their skills such as creativity, problem-solving, critical thinking, and analysis. So, instead of just attending lessons at schools, getting participated will increase the memory retention rate and help the students who are more practical and have trouble to imagine or retain concepts through explanation alone.

Augmented Reality applications provide the teachers with more options to customize their experiences and adjust their AR sets to match their teaching strategies. Theoretic teachers can use AR as an aid to empower their expositions while more practical tutors can have. MERGE Cube and CoSpaces Edu are one of the most used AR applications in classrooms. MERGE Cube, an AR multiplatform mobile tool enables the teachers to create STEM (science, technology, engineering, and math) lessons and the students to see their materials come to life as a hologram hold in their hands. With CoSpaces Edu, the designing tool, students with coding experience can create virtual 3D worlds, infographics, and teachers can create/post classes and assignments. In History classes, for example, students can see objects/people/events from the past in front of their eyes through the enchantment made by AR.

This enchantment is made by overlaying the real world you see with computer-generated objects (called the augmentation) that could be a 3D animated character, scene, or any kind of media. These objects are placed onto the live camera field of the user device such as smartphones, tablets, PC or connected glasses. This all is achieved by computer vision that understands what is in the physical world and displays certain augmentation based on what has been detected from the live camera.

In conclusion, the advantages of blending augmentation in the learning process are as follow:

- Content will be more understandable.
- Material will be available for everyone and not limited to the group of students who use it.
- Physical tasks will be performed in an improved way.
- Develop Sensory skills for the students.
- Students will be motivated to patriciate more.
- Collaboration between students and teachers will be increased.
- Memory retention rate will be increased.
- Classes will be more interactive.
- The Learning process will be more affordable and not limited to the school time.