

# AUGMENTED REALITY: THE NEW FRONTIER OF EDUCATION

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Technology has been always at the forefront of innovation rubbing shoulders with creativity. No doubt content rules but ultimately how the idea is showcased or presented is what matters the most.

We have been a witness to the latest developments in science and as a result, humanity today is at the cutting edge of information superhighway. Technology has reached the hands of the masses. Therefore we can say for sure that, what was just a matter of science fiction a few decades back is now very contemporary, alive and kicking. It is evident from experience that the best way to realize the potential of any new discovery or invention is to give it to the educators and the students. We see transformations which are very real, changing the academic landscape in a way we never perceived or thought could ever existed.

We are not talking about truth which is stranger than fiction or a stuff of dreams.

personified is talking to us responding to our specific queries.

The permutations and combinations are virtually limitless. This engages the information seeker to a new level of interactivity never experienced or seen before. That is to say that the students and academicians are creating an atmosphere of digital information which is relevant atop a physical world which can be accessed through out technology enabled devices.

Most of the times when people access information through AR it is a mind blowing experience. In our schools and colleges we can create active learning experiences through AR thereby taking the learning to a whole new dimension. Let us analyze and highlight a few key points:

•**Mini-Assignments:** When students scan a page of their assignment through LMS/email/blackboard then that page reveals a video of their teacher helping them to solve a problem.

•**Photo Wall of Faculty:** We set up a display of photos of faculty for the relevant department near the school entrance. Visitors / parents can scan the images of any faculty r and as if magic the figure comes to life telling about their work interactively.

•**Reviews of Books:** Students record themselves and explain about the book / chapter that have read and then they attach that “aura” to a book. Afterwards that video is attached as tag to that chapter or book and anyone accessing the material can see the review dynamically.

•**Involvement of Guardians:** Imagine students living away from home can receive their parent’s brief words of encouragement. These video messages are triggered and attached to every child’s desk virtually. If anytime students are feeling low and they need to hear encouraging words then, they can scan the image on their desk for virtual inspiration.



Welcome to the world of Augmented Reality!

We are acutely aware that access to information in library has metamorphosed from serial access to dynamic where everything is in digital format whether text, image or video. Every digital repository is almost a click away ready to be accessed. Let us imagine a scenario where we walk into a university reception and all the photos and posters seem so conventional until we start interacting with them. So what if we are standing in front of a picture of Newton and browsing all his works through our connected device. Newton

•**Yearbooks:** Ranging from video profiles to tributes, from skits to sports highlights and concert footage, the ways that AR can enhance a university newsletter communication is limitless.

AR serves as a bridge between the virtual and physical worlds, it changes the way we see, imagine, and learn about the world around us. It enables students and teachers to visualize 3D models in the real environment, in real time, and at real world scale.

AR is particularly valuable for educators who teach 3D design in class and would like to use AR as a presentation tool and in their projects. It streamlines the design process, enabling greater collaborations and faster iterations

Last but not the least I will give ample reasons as to why we should try to incorporate Augmented Reality in Education:

**Eye-catching presentations:** By integrating AR into our lectures, we'll grab the attention of your audience and will have their undivided attention. Let's say a teacher in automobile design integrated AR into his lessons to show 3D models of chassis and engine parts interacting.

**Interactive lessons:** Through augmented models, the students can gain a better understanding of the concepts which otherwise are very boring. In fact this

is a fun way to engage students and reinforce learning.

**Higher retention:** With a simple a scan through their smart device

the students can access augmented models representing anything from a molecule, to a historical site or a part of part of the human DNA structure. Students can access websites directly from the Augment's app. Let's say after scanning a photo linked with a 3D model of Gateway of India students can go to relevant web page with more information on the famous monument. This experience creates a complete learning cycle.

**Fostering intellectual curiosity:** Incorporating AR into our lessons will make students look forward to learning. They being continuously stimulated with AR will be excited by new ideas and think critically about the world around them.

Introducing students to AR will enable them to unlock unknown passions and inspire them to their future endeavors.



# STUDENT ACHIEVEMENTS

## Summer Internship at Autodesk

### Bharath Arunachalam, M.Des in Industrial Design

I had this great opportunity to do an internship program with Autodesk during summer 2016. Getting to this point involved a selection process and an interview with Autodesk. Fusion 360 is a 3D modelling tool

which helps the user convert his/her sketches/ideas to models, visualization and also as an aid in manufacturing in a short span of time. It was a paid internship program that spanned for six months. Our



A screen shot of making a quadcopter in Fusion 360.



Render using the same tool



Integrated safety gear