We have been teaching with technology for quite some time now. Many of us have become fairly adept at using technology in our classrooms, even some who say they are not tech savvy. But does being comfortable with technology suggest we have reached a plateau? I do not think so. There are still many new inroads to be explored and charted.

Take Augmented Reality (AR), for instance. Augmented Reality is a technology that superimposes a computer-generated image on the user’s view of the real world, thus providing a composite view. This kind of view augments the elements of the real world that enhances a person’s current perception of reality. Augmented Reality apps are written in special 3D programs tying contextual digital information or animation in the real time world. This is distinctly different from Virtual Reality (VR), which replaces the real world with a simulated one.

Augmented Reality has been around longer than we realize. Thomas Caudell coined the term for Boeing in 1990 while working with electricians on complicated wiring. It made its first commercial debut on that “first down” yellow line on television in a football game in 1998. We have seen it many times watching a soccer or football game when the announcers circle a player, or draw the distance on the field to complete a goal, or when they draw the maneuvers of the players to demonstrate a previous strategy.

AR technology is frequently used in healthcare, public safety, tourism and marketing. Technology, in many areas, has advanced with lightning speed from industry into the personal use of the ordinary person. Yet, it is a conundrum as to why it is taking so long for AR to make the same transition. Google Glass is the closest AR makes its way into the ordinary lives of people and, last but not least, the world of education!

Google Glass is an optical head-mounted display designed in the shape of a pair of glasses. Teachers have used Google Glass in the classroom. Students can purchase their
own pair for about $10 or $15. “Google Glass displayed information in smartphone-like hands-free format. Wearers communicated with the internet via natural language voice commands.”

"Currently, however, access to AR technology for educational purposes is mostly limited to smartphone apps." But never despair, if you have an iPhone there are many AR apps with which to delight you and your students. Just ask your students to share the mobile experience with you and their classmates. Ask them to download some of the apps and play them in the classroom, if they do not already have them.

Want to whet your appetite? Just watch an AR video demonstration of Spider-Man’s Web-Slinger where he slings over your city streets, or on a poster lying on your desk using an AR app and your iPhone camera. www.youtube.com/watch?v=oH_LfXnklRw

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Below are the 5 top Augmented Reality apps for education

1. Google Sky Map – This is an Augmented Reality app which makes learning about astronomy interesting and fun. Instead of looking at descriptions of constellations in a book and then attempting to identify them in the sky, you can use Google Sky Map to directly identify stars and constellations using the camera on your smartphone. Simply hold your smartphone up in the direction of the sky to receive automatic identification of stars and constellations. Point your phone, Google Sky Map will automatically identify the elements which appear on your camera lens.


2. FETCH! Lunch Rush - Recently released by PBS KIDS, FETCH! Lunch Rush is an augmented reality app to teach math skills to elementary students through the use of

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1 Wikipedia.
2 http://www.hongkiat.com/blog/future-classroom-technologies/
3 https://www.youtube.com/watch?v=oH_LfXnklRw
4 http://www.hongkiat.com/blog/future-classroom-technologies/
5 http://www.hongkiat.com/blog/augmented-reality-apps-for-education/
visualization. Designed in 3-D, the app uses your smartphone camera to place graphics on your camera over real-world surroundings. The app then teaches elementary students to add and subtract using real-world scenarios which allow for visualization while solving math problems. FETCH! Lunch Rush is designed for use with the iPhone, iPod Touch and iPad and is available for free at the App Store. It is the first augmented reality app for education released by PBS.6 https://www.youtube.com/watch?v=aviG5uQ8pHU

3. GeoGoogle - GeoGoggle is a great helper when it comes to acquiring geography skills and judging distances to specific destinations. Students can learn geographical measurement such as latitude and longitude by applying GeoGoggle to real-world surroundings. The app also allows you to calculate altitude and the distance between two points using a 3D compass. Like other augmented reality apps the app uses overlay graphics combined with real-world surroundings to help you learn the fundamentals of geography. GeoGoggle is a free app and is designed for Android 2.1 and higher.7

https://www.youtube.com/watch?v=I9z2QjNC0Bc

4. ZooBurst - This is a nifty augmented reality app to help elementary level students learn through visual imaging. With this app, students get to interact and become a part of a story. ZooBurst allows you to engage in digital storytelling by designing storybooks complete with 3-D characters. The digital storybooks can be customized using a library of thousands of images and users can add Adobe flash animations, narrations, and speech balloons to the story. Once the book is completed, students can become a part of the story via webcam. They can also click on the characters in the story to learn more about them.

The digital storybook created by ZooBurst can be rotated enabling you to view it from any angle. ZooBurst can also be used to help students create presentations and communicate complex ideas which would otherwise be difficult to explain. Check out this video presentation to get a better idea of how ZooBurst works.8

5. Acrossair - is a browser which can be used in real-world surroundings and in the classroom for learning and discussion. The browser can carry apps that push the

6 Ibid.
7 Ibid.
8 http://www.hongkiat.com/blog/augmented-reality-apps-for-education/
boundaries of the uses of augmented reality. You can find locations near you and share your locations with friends. Students can also create interactive classroom projects, and participate in interactive photo walls displaying wiki and multimedia on a classroom topic.

Another fun feature of Acrossair is that it enables you to engage in classroom discussions via Twitter AR. After sending out your tweet, you can launch Acrossair to check out the latest tweets by people near you via geotagging technology. Imagine holding up your phone and seeing tweets by the people around you.⁹

https://www.youtube.com/watch?v=o_mUFS992Cw

**Augmented Reality** has the potential to bring new dimensions to education. It has the power to unlock the everyday world for educators and our students. It can stimulate new interest and enthusiasm by thrusting young learners deeper and engaging them in new experiences in the real world with endless possibilities. Let us hope it will not take too much longer to expand its applicability on all devices, so that, we may bring learning to life for our students...and then watch the magic happen!

⁹ Ibid.