

How cool is this Augmented Reality art walk?!

Imagine looking up to the sky and seeing a jumble of words appear and drift away, appearing it would seem, out of thin air! But that is just one of the wonders that take place during a series of guided walks created under by Apple Inc under their augmented reality [AR]T concept.

Apple partnered with cutting-edge art museum, New Museum, who chose prestigious artists such as John Giorno, Nick Cave, Nathalie Djurberg, Hans Berg, Cao Fei, Carsten Höller and Pipilotti Rist, who each created a unique augmented reality work to blend into the environment of the tour. The whole park therefore became a large canvas!

Each walk begins at an Apple Store and guests are given an iPhone (the art only works with phones provided on the tour) and a pair of headsets. The walk in New York goes through Central Park where at certain places, works show up on the screen against the backdrop of the park. For example, with John Giorno's work, the path that you walk on becomes a rainbow or with Nick Cave's piece, you get to choose a virtual creature who walks along with you, making it a very interactive experience!

The tours are free and will soon be available in San Francisco, London, Paris, Hong Kong and Tokyo.



Written by: Pereena Lamba. Pereena is a freelance writer, editor and creative consultant. She is also co-author of *Totally Mumbai*.

It's all in the Face: Understanding Facial Recognition



The iPhone X that released in 2017 was enhanced with a new feature that became very popular. Now, we see this in almost all the new phones. Any guesses what this feature is?

Hint: It uses your face to unlock your phone.

That's right! It is Face ID or Facial Recognition (FR)! What's this? Software that identifies a person by scanning his or her face. The software captures your facial features, stores it in a database and later uses this to verify your identity.

How is it being used?

In medicine, FR is being tested to help to detect genetic diseases like DiGeorge syndrome. A person with this rare disease has slightly different facial features than someone who doesn't. These differences are not very obvious. One study showed that the FR software was able to detect the disease with 96% accuracy by scanning a photograph!



There are also apps such as Seeing AI (Microsoft) to help people with lower vision to understand their surroundings better, see their documents more easily, read out text to them, and also help them to communicate better in social situations, like at a party. For example, it can identify people that the person with poor vision is talking to, and can help to analyze their emotions. For example, when the person he or she is talking to smiles, the phone buzzes! Isn't that amazing?

Another way that FR's ability to read emotions is being used is in some job interviews. In 2017, Unilever (the company that makes Dove soap) asked some job applicants for video resumes. These were passed through FR software to look for signs of lying, stress, eagerness, irritation, level of confidence, an "ideal" company face, and so on. Tiny facial and body movements can tell you a lot about a person. Sometimes, these tiny clues can be missed by humans but not by FR. The company used this information to hire some applicants.

Challenges: There are some serious challenges associated with the use of facial recognition, and people are questioning if it should be used in these kinds of applications. A lot depends on how well the software algorithms are coded, and on the people who have written those codes and trained the systems. We humans introduce our own biases into the software, which will then dictate the kind of accuracy it has and the kinds of mistakes that it makes.

Furthermore, the accuracy of the software will depend on how much data it is given - people come in all shapes and sizes, and so do our facial features. The software needs to be fed with large databases of features for people of different races and cultures in order to improve the accuracy rates.

As it relates to job interviews - there are certain things that people might explain in a face to face interview, that they can't in a video interview with preset questions. These might have a bearing on whether or not they are given the position.

San Francisco Bans FR? On 14th May, 2019, the technology hub of San Francisco, CA, voted to ban FR from being used by government agencies like the police. FR is used by the police to search for criminals and to identify them in a crowd.

This sounds extremely useful so what's the problem? FR doesn't work properly for darker skinned people and for women almost 35% of the time. That's a high error rate! What if you got arrested because you were mistaken for a criminal?

Question: Do you think that facial recognition software will be able to replace a human completely over time

for certain applications? What might these applications be? Write to us in the 'comments' section below, or email us at: mail@currentkids.in with your thoughts.

[Click on this link to see what CurrentKid Rya Jetha has written for us on Artificial Intelligence.](#)



Vaijayanti is a writer, a nature enthusiast and an amateur wildlife photographer. She hopes her virtual pen and lens can make the world a better place

Fortnite Fever: CurrentKids review Season 9



Credit: Fortnite Wiki

Fortnite is a game that is played across multiple devices, allows many people to play together, and has taken the world by storm over the past few years. Epic Games has recently launched Season 9 of this game, where they introduced a few changes. We asked a few kids for a review. Here goes!

“Season 9 of Fortnite looks very flashy and modern, but we think that Fortnite would soon be dead, if it wasn’t for Creative mode. Fortnite Creative mode is when many friends get together and play in their own world that they make (sorta like Minecraft). Many people enjoy this game mode because all the weapons that have ever been added in the normal game modes (even ones that have been removed) can be used.

In Season 9, there have been revolutionary changes in the Fortnite landscape, like the destruction of famous places such as Tilted Towers and Retail Row.

Epic Games (the developer of Fortnite) took a big risk in doing this, as many people enjoyed those places a lot. We liked Fortnite how it was before, but maybe it’s time to make a few changes in the landscape, to make it fresh and lively.

We feel that if Epic Games doesn’t do something to make Fortnite a better, more interesting experience, like a whole new way of playing, people will move on to other first person shooter games like Apex Legends and Call Of Duty.”

What do you think? Write in the comments section to be heard, and get your comments seen by your friends.

Contributed by: Uday Advani and Sumer Murthy, 12 year olds from Mumbai

Video streaming: Netflix, Amazon Prime, Disney, AT&T-Time Warner, and... Apple?



It's a great time to be a consumer of content right now. The internet and broadband has completely changed how we read, write, share our thoughts, and enjoy music and videos.

Not long ago, we had cassettes and CDs for music, DVDs for movies, and movie rental libraries. Not anymore. We stream everything - Spotify and Apple Music give us playlists and singles that we can enjoy and share with our friends. [Movies and TV shows are streamed on YouTube, Amazon Prime, Netflix, Hulu, and other such services.](#)

In an effort to attract us, the distributors of the content - like Amazon and Netflix - are creating original TV shows and movies. Users like us pay a subscription fee in order to access this content.

So who are the players in the video streaming market, how big is this, and why are we talking about it?



Apple, Inc. launched Apple TV a few years ago, but if you have used it, you know that it mainly allows us rental access to movies once they are out of the theatres and before they show up on the other streaming services. Apple announced its revamped offering in the video streaming business on March 25, 2019. So we thought it to be a good time to take a look at what this market looks like.

Apple reported revenues of \$256 billion in 2018, out of which revenues from its services was reported at \$37 billion, or approximately 14.5%. These services include the App Store, iCloud, iTunes and Apple Pay. Video streaming is negligible here, but Apple hopes to grow this services part of its business, as growth in the market of phones and hardware is slowing down. Subscriptions are a big part of its new plan. This includes subscriptions to newspapers as well as TVs, movies, and games.

How big is the current video streaming market? [Statista says that there were 283 million people worldwide who use streaming services in 2018.](#) This is projected to increase to 411 million in 2022. [At that many users, it is currently a worldwide market of \\$24 billion.](#) That's pretty big, and that's in entertainment. There are other applications in education and finance.

Why are they anticipating so much growth? Smartphones are everywhere, in almost every hand. That, coupled with increasing internet and 4G penetration, means that more people have access to streamed content.

Who are the market leaders? Netflix and Amazon Prime are fighting it out in many markets. However, Disney-Fox (Disney+ and Hulu), AT&T-Time Warner, and now Apple, are looking at ways to enter, or to create a bigger presence in this market.

New content: Apple has Oprah Winfrey, Steven Spielberg, and other big name actors and actresses acting in new content that it is creating for its video streaming service, Apple+.

How about gaming? They have announced that Apple Arcade is coming soon. This is a subscription service through which users get access to a large library of games (over 100 to start with) for a monthly fee. Apple is helping to fund the development of the games that will be exclusively available through the service, from many developers including big names like Cartoon Network, Disney, Konami, Lego, and Sega. These will be accessed through a dedicated Apple Arcade tab in the App store.

Didn't Google just announce something similar? Unlike Google Stadia, (Google has announced a new platform to stream games - [see our article on Stadia](#)) the service is not cloud based and can be downloaded and played offline across iOS, Mac, and Apple TV. Since multiple platforms are supported, you can start a game on one device and switch over to another without losing your progress. It also includes Family Sharing which means that a single subscription can be accessed by up to six family members just like it works on Apple Music. With the subscription, there will be no ads or in-app purchases. However there is no information yet on how much it will cost.

When do we get this? Sometime in the fall. It's a bit unclear.

What does this mean for us? We can sit back, relax, and prepare to be entertained!

Written by: Zarir De Vitre and Sunaina Murthy.

Happy 30th Birthday, www!



It was 30 years ago that web creator Sir Tim Berners-Lee outlined his idea of the World Wide Web. Some say it is the single most important creation in the past 50 years. Berners-Lee wrote a piece recently, highlighting the positive, and some of the darker aspects, of the internet.

To celebrate this milestone, here are our birthday wishes, hopes and thank yous for the 'Web'.

We thank you for connecting us to friends and family with wonderful websites that help us talk, laugh, console and bring happiness to people we love all across the globe. From sharing pictures, to birthday videos, to talking to someone when they are ill, you have genuinely changed the way we communicate globally.

We thank you for becoming a global university where people can learn all sorts of things, like the rules of football, making slime, and collecting recipes from anywhere on earth to tickle our tastebuds! We also wish that you will become a greater tool to bring education to children who may not be able to go to school but can study from home.

We thank you for spreading new medical cures so that more people around the world can be healed. However, we do hope that people will consult their own doctors as well, as there is no one-size-fits-all when it comes to taking medicine.

We wish that there will be stronger checks to stop hatred of all kind. From recent killings in New Zealand to racism, and varied forms of hate speech, we wish that you would help us bring down borders instead of putting up more. We also wish that you will become a greater platform for voices that are not always heard (like women and marginalised communities). We hope they will be allowed to share their opinions without hate or the fear of being trolled or punished for it.

We wish that you will bring us news which is truthful and uncensored and not reports that are malicious or that will encourage old biases.

We wish that you will be a safe place for children without them being exposed to things that are beyond their understanding.

We wish that you will bring us more art, more books, and more music (with proper rights to the artists who create them) for us to be able to access the things that many may never physically get to see.

We wish that you become a driving force to help create a better climate for our children. You are a great way to create awareness of environmental issues, and there have been so many great online campaigns that have worked!

We wish that the information that we give you can be safe with you and not shared with others who may do us harm.

And our biggest thank you is for allowing the world to open up to us at our fingertips - whether it's mapping our way to anywhere, helping us speak to each other through translation, keeping us healthy by tracking our fitness levels, and of course, online shopping!

Happy birthday! We look forward to a safer, peaceful world and we are confident you will be a big part of it!



Written by: Pereena Lamba. Pereena is a freelance writer, editor and creative consultant. She is also co-author of *Totally Mumbai*.

The CurrentKids Money Rewind: Some things that happened in Business in 2018

https://www.youtube.com/watch?v=809hRj_UINQ

Toyota invests \$500 million in Uber to develop self driving cars



Toyota is a Japanese car maker. Uber is a service that allows people to order and share transport. They have both been part of the quest to develop safe driverless or self driving cars. Driverless cars? Yup, you read right - cars that drive themselves! [Click here to see what we have written about this before.](#)

TOYOTA

The latest? This week, Toyota announced that they will be investing \$500 million in Uber to expand their existing partnership to develop self driving cars. The Toyota minivans will be fitted out with a mix of some of Toyota's technology and some of Uber's. They say they will have them on the roads in 2021.

There are a number of automobile companies like Nissan, Toyota, BMW, Mercedes, Tesla, and others, developing self-driving cars. There are also technology companies such as Google and Apple who are apparently in stages of development of this technology.

In Japan this week, a company called ZMP, which develops this driverless technology, and Hinomaru Kotsu, a taxi service company, were testing out self driving taxis along a short stretch in Tokyo. Customers apparently could get into the car, pay using their smart phones, and made the pre-programmed trip. Japanese companies are trying to develop and test these cars before the 2020 Summer Olympics so they can use these to take tourists back and forth from the sports arenas.

Of course this is cutting edge technology, and needs a lot of testing before it is put on the roads. The sensors around the cars need to record speed and movement of objects, cars, and people, around them, and they need to be able to stop even with sudden movements or it can be dangerous for pedestrians, pets, and passengers in other vehicles.

It's exciting to see what will unfold!



Written by: Sunaina Murthy. Sunaina is a biotechnologist, writer, greedy reader, and amateur photographer.

Apple is the first publicly listed company to hit 1 \$Trillion. What does that even mean?

Apple is the first publicly traded company to ever be valued over \$1 trillion. It has a 'market cap' of \$1 trillion. Google and Amazon are close behind at just under \$900 billion each.

What is a trillion? 1 with 12 zeros!

This brings us to the 'market cap'. What is it? The Market Capitalization or 'market cap' of a company is the market value of a company or the value of a company as estimated by the market.

For Example, if a public company has issued a total of a 100 shares and you own 1 share, you effectively own 1/100 or 1% of the company. These shares can be bought and sold on the stock exchange. Let us say the market price on the stock exchange for 1 share is \$10. The person buying this one share for \$10 is directly buying 1% of the company for \$10. If he bought all 100 shares of the company at this market price of \$10, he or she would have to pay \$1,000. So the market value for 1 share is \$10 but the implied market value or the market cap of the entire company is \$1,000.



<https://www.statista.com/chart/14953/apple-market-capitalization/>

You will find more infographics at [Statista](#)

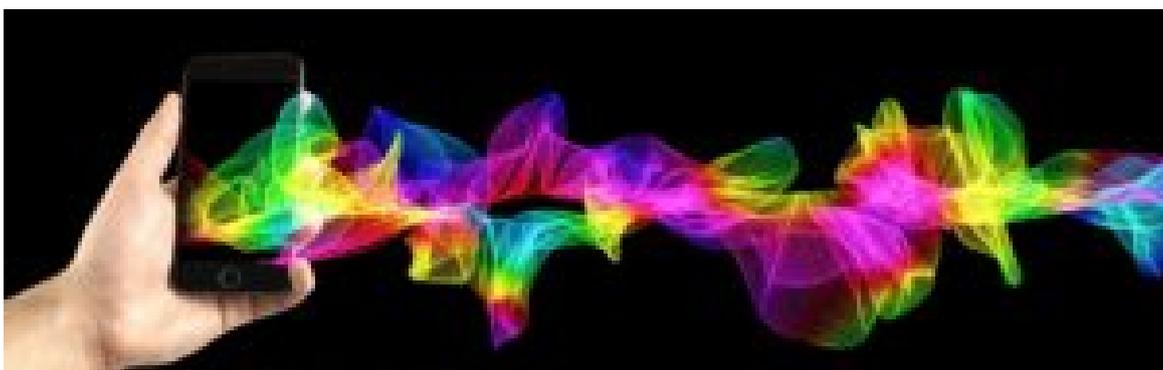
Apple: Apple has just under 5 billion shares outstanding. Each share currently trades for just over \$200/share, or \$200 per share. So if someone was to buy all the shares of Apple, i.e. the entire company, he would have to pay a \$1 trillion. This is the market cap of Apple.

How does someone decide if a company should be worth \$1tn or \$1bn is a longer and more complicated conversation but the short version is it is the potential of the company to deliver on revenue and profits.

Apple's revenues (sales) in 2017 were \$229 billion and their income (sales - expenses) were \$52 billion. The potential of Apple's shares is decided by us depending on what we feel about their new product launches, their ability to keep selling the regular products, their ability to ward off competition amongst other things.

Written By: Anant Jalan

Are you ready for the iPhone X?



What's in a phone that will cost \$999? And why would Apple release an iPhone 8, iPhone8S and iPhone X at the same time? And which is better - the new iPhone or the Samsung S8?

Read here for answers to all these confusing questions:

The iPhone is now 10 years old, so it was widely anticipated that Apple would reveal a revolutionary new phone for its 10th anniversary edition. This is the new iPhone X, the price of which starts at \$999! It will be on sale beginning in November 2017. Apple also just released the iPhone 8 and the iPhone 8 plus. Why? These are less expensive than the iPhone X and still have the home button. And they are available right now.

All three new phones will have wireless charging, and more powerful cameras than the iPhone 7. The iPhone 8 (\$699) and 8 plus (\$799): have a more powerful processing chip than the 7. They also have more powerful camera lenses than the iPhone 7.

The iPhone X has an all-screen display, no home button, and facial recognition to unlock the phone. The facial recognition software can only familiarise itself with one face though. The S8 has facial recognition already.

OK this sounds awesome - but how do the new iPhones compare to the Samsung S8, one of the leaders in the smartphone market?

iPhone 8 vs. Samsung S8

They cost approximately the same, but we think it sounds like the S8 wins...

The S8 has as powerful a camera as the iPhone 8, a more powerful screen, it still has a headphone jack, and it has an extra slot where you can put in an SD card for extra storage. The iPhone 8 doesn't have either of these. They both support wireless charging, and can both go underwater! The processing chip on the iPhone 8 is slightly more powerful than the S8, but the camera on the S8 is better.

iPhone X vs Samsung S8

It is rumoured that the S8 screen has better resolution than the iPhone X. The iPhone X however uses ARKit - software that uses augmented reality.

Augmented reality? What's that??? So you know how you play Pokemon Go, where the phone uses the pictures of your current surroundings but then puts in random characters in places on the screen? That's augmented reality. Kind of like if you pointed the phone at your friend, and on the screen, there might be a Pokemon on your friend's head, but in reality (of course!), there isn't! Apple is going bonkers showing people how they can use ARKit to make all sorts of cool new programs - maybe in maps you can see the actual roads, maybe you can play games where you can really battle the opponent in the room you are in - the possibilities are endless!

Apart from that, it sounds like they are apparently remarkably similar, at very different price points. The S8 costs about \$725 while the iPhone X starts at \$999. Let's see what people buy after the iPhone X comes out in November!