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Space missions to look forward to in 2021

By: Krish Mehta



While Earth is busy dealing with the coronavirus pandemic, astronauts and aeronautical programs look to the skies with hope, as this year is packed with exciting new space missions that will expand us to new, undiscovered frontiers. From new missions to Mars to the start of the program that will return humans to the Moon, here's what 2021 holds for the world of space exploration. In 2020, space exploration achieved several notable things, such as commercial human spaceflight and successfully returning samples of an asteroid to Earth. This year boasts to be just as interesting, if not more.

The first mission is Artemis 1, the initial flight of the Nasa-led, international Artemis program to return astronauts to the Moon by 2024. The mission will consist of a Orion spacecraft with no members on it which will be sent on a three-week flight around the Moon. The maximum distance from Earth will be 450,000km, which is the farthest into space any spacecraft that is able to transport humans will have ever flown. Artemis 1 will be launched into Earth's orbit on the first Nasa Space Launch System, which will be the most powerful

rocket in the operation. From there, the Orion will be propelled onto a different path towards the Moon by the rocket's interim cryogenic propulsion stage. After that, the capsule will then travel to the Moon using the power provided by a service module supplied by ESA, or the European Space Agency.

Another set of important missions will be the Mars missions. The United Arab Emirates' Al Amal (Hope) spacecraft is the Arab world's first interplanetary mission which is scheduled to arrive in Mars orbit on February 9. It will spend two years monitoring the Martian weather. Within a couple of weeks after Al Amal, the China National Space Administration's Tiawen-1 will enter Mars orbit for several months before deploying the rover to the surface. If it is successful, China will become the third country to land anything on Mars. The mission's objectives consist of mapping the mineral composition of the surface and searching for sub-surface water deposits.

Meanwhile, in India, Chandrayaan-3 is scheduled to launch in March 2021, by ISRO (Indian Space Research Organization). This will be India's third lunar mission, and will consist of a lander and a rover. If everything goes as it should, Chandrayaan-3 will touch down on the Moon's South Pole's Aitken basin. It is of particular interest as it is thought to host numerous deposits of sub-surface water ice- a vital component for any possible future lunar colonization.

Finally, the successor to the Hubble Space Telescope, the James Webb Space Telescope is planning to focus observations in the infrared wavelength band. The reason for this is that when observing extremely distant objects, there will most probably always be gas clouds in the way. These clouds block really small wavelengths of light, while longer wavelengths like infra-red can get through more easily. So by observing these longer wavelengths we should be able to see more of the universe. Webb also has a much bigger mirror of 6.5 meter diameter compared to the Hubble's 2.4 meter diameter, which is essential for improving image resolution and seeing more in depth. Apart from capturing stunning and out-of-this world images, the Webb Telescope's primary goal is to look at light from galaxies at the edge of the universe which can tell us about how the first

stars, galaxies, and solar systems formed. This could also potentially include information about the origin of life as well, as Webb is planning on zooming in on exoplanet atmospheres in high detail, searching for the building blocks of life. Its planned launch date is on October 31 on an Ariane 5 rocket.



Madhubani Art by Siyona Pawar

Madhubani Art



A 2500-year-old folk art, the history of Madhubani paintings is said to date back to the time of Ramayana when king Janaka asked an artist to capture his daughter Sita's wedding to Prince Rama.

Madhubani painting also referred to as Mithila Art it flourishes in the Mithila region of Bihar, is characterized by line drawings filled in by bright colors and contrasts or patterns. The art of Madhubani paintings is a traditional fashion of paintings developed in the Mithila region, near the city of Madhubani. Literally, the word Madhubani means "honey forest".

The Madhubani painting is said to be one of the most famous art forms that originated from India. It is often practiced by people in the region of Nepal and Bihar. ... This particular type of art was used by the women to decorate their house walls and doors so as to seek God's blessing for peace and prosperity.

Madhubani paintings are characterized by figures that have prominently outlined, bulging fish-like eyes and pointed noses. The themes of these paintings usually include natural elements like fish, parrot, elephant, turtle, sun, moon, bamboo tree, and lotus.

Madhubani painting is famous for its naturality and uniqueness. Traditionally this painting was crafted using natural color. All colors were extracted from plant leave, flowers, fruits, and other parts of plants. This way artist was giving Madhubani art uniqueness and naturality.

Today, Madhubani art piques interest in art lovers from different countries like the USA, Australia, UK, and Russia. Patterns from this art form have also found their way onto various items like bags, cushion covers, coasters, mugs, crockery, and mouse pads.

Madhubani remains ever-popular on the home décor front in the form of prints for table linens, napkin rings, and lamps, and most importantly on wall hangings. Mostly because Mithila art was originally used for decorating walls and floors of homes.

The beautiful patterns of these paintings don't seem to have been used by Indian designers. But they have found their way onto silk sari borders, dupattas, Kurtis, and more. Here's to making our lives a bit richer by paying tribute to our nation's heritage and buying some authentic Madhubani art.





Love

But Arranged By Nikhil





Today let's talk about the most favorite and nightmare topic for all Indian singles in the US, behind whom all their family members are running, Arranged Marriages. You open any social media platform and it's "marriage" time". It's the topic of discussion on calls to our parents, siblings, and even friends. With this text I want to put forward some of the problems of people going through this phase and also want to try to look out for possible solutions and larger impact. Wow that sounded very boring didn't it? I will try to keep it casual. In today's time, the average age of all arranged marriage candidates in US is somewhere within 25 to 30. All of them have spent half of their young life studying to earn degrees, working hard to pay off their education loans, supporting their family, etc. I believe that the growth of a person is like making a clay pot. Initially, the clay is very soft and moldable but as it grows it starts taking a shape and starts becoming rigid. Similarly, as a person grows in age, his/her personality is shaped by upbringing from parents and the education they take. So even though a marriage candidate in late '20s or initial '30s has grown into a fantastic personality, all the people running behind that person for marriage must understand that the same person has also become rigid, in terms of expectations, friendliness, adaptability, and many other aspects which are essential especially for an arranged marriage. Parents say "it wasn't this way during our time" when their child is taking too long to choose someone. These parents must understand that they got married when they were young maybe at the age of 22-23 when they were less rigid. I feel that this whole concept of arranged marriage hasn't evolved with time and hence getting difficult day by day to get arrange married. Most of the marriage candidates are confused about what their heart says, and brain thinks about someone. According to experts, there are 5 kinds of attraction that we naturally feel about someone.

Physical: This is the initial spark that makes one gain some confidence to begin to explore that person. It does matter how a person looks, dress, maintains their physique, etc.

Financial: It's about how a person is doing financially, how much they earn, where they work, or the assets they own.

Mental: It's about how engaging a person is, or how intellectual a person is.

Emotional: It's about a person who supports you in your downs, a person you think will always stand by your side even if the whole world goes against you.

Spiritual: It's about a person with whom you have a consensus about core principles of life.

Above five principles define you as a human. In simple words, if parents of a child have the same thinking of the person their child should grow into. Then we can say that such parents have spiritual compatibility. Again, according to experts the first 2 of the above are not mandatory but are good to have to get started. But the rest 3 are essential to maintain and nurture a relationship for a longer period of time. The last three together can also be called "compatibility" the word that we all use a lot. Everyone feels these kinds of attraction but fails to understand, differentiate, and prioritize them. Which confuses the hell out. Validating the above attractions, fitting into each other's likes, dislikes, future plans, and future life is kind of like passing hurdles or cracking interviews one after the other. That too happening from both sides and the only way to success is when both the parties pass all the hurdles and fit into a single mold. So when a person in the late '20s or '30s tells his/her parents that he/she is ready to marry someone then parents should understand that a lot of thought process has been done by their child and their child is capable and old enough to decide whom to spend life with. In an arranged marriage, it's very rare that prospects madly fall in love before getting married. At most, there can be a sense of liking or confidence to happily spend life with someone. hence, it's very important that parents actively support their child's decision and take efforts to make that marriage happen instead of taking other relative's opinion in making the decision or imposing own opinions or staying neutral. A little negative vibe from family may ruin a good match. Having positivity from both families the most important thing to have, for an arranged marriage to happen. Hence bringing personal biases and opinions into the picture must be avoided by families, which never happens. When problems arise between families, parents from both parties should pro-actively act to resolve them, which many times doesn't happen. Families from both sides in the name of prestige, work towards parting their ways or they stay neutral which ruins a good match. Before parting ways, parents must understand that this process of spending time, validating one another, and deciding on someone involves an investment of time and feelings, and it can't be repeated multiple times. Few mistakes we all do. Prejudgment, when prospects start meeting or talking to each other. A lot of prediction goes on about how the person would act when a certain situation arises, which might be wrong. The person might act differently. Convenient use of equality, which makes us think of ourselves as victims first, we think about aspects where we have been offered less freedom than others. But we fail to understand that equality also means giving up on some of our freedoms so someone else can enjoy some freedom. We fail to understand that sometimes we are a glass full of water and

we have to pour some of our own water into an empty glass to make it equal. Lack of empathy, we must try to put yourself in other person's shoes and imagine what would you do, this might convince you about that person's actions and opinions. Forgetting a famous quote "It's not about you or me, it's about us" Lastly, arranged marriages need to evolve in terms of differentiation on the basis of caste and language, discrimination on the basis of marital status divorced and widowed, ignorance about medical fitness and medical tests to be done before marriage, the taboo about sex and sexual problems. Not many of you reading this must have liked the first two points about caste, language and marital status. But it is a necessity, have a deep thought on it with larger future impacts. If the arranged marriages do not evolve, it will have a larger impact on society. There will be older singles, unhappy couples, extramarital affairs, and divorces. Overall an unhappy society, which may lead to a greater number of rapes, sexual harassments, and many more. Happily married couples in society are the necessity for better life and upbringing of coming generations, which will collectively contribute to the betterment of the nation. We need to look at the broader picture and act accordingly. The world is changing rapidly, hence the gap between generations is also increasing. The only way to bridge this gap is to understand and evolve.



Reducing screen time By Atharva Raje... Introduction

Screen time is something that everyone uses and is important in our everyday lives. Screen time is time on electronic devices such as, tablets, computers, Phones, TV etc. Too much screen time will make your eyes hurt but you need it anyway to study, socialize, and be entertained. I am Atharva Raje and this paper talks about reducing screen time and using it optimally. Even though we are aware of the consequences of too much screen time, it is hard to avoid it completely.

Effects of screen time

According to the article published in 'The Washington Post' dated Oct 29, 2019 on average, American 8-to-12-year-olds spent 4 hours and 44 minutes on screen media each day. And teens average 7 hours and 22 minutes — not including time spent using screens for school or homework. Screen time produces blue light which is harmful to your eyes. Blue light is harmful because it increases the risk of macular degeneration. It also is harmful because blue light penetrates all the way to the retina and then it destroys light-sensitive cells in your retina. All about vision also says that blue light is also needed for your body so a little blue light is fine but if it is not controlled your eyes can get damaged severely. Not only that but too much screen time reduces the physical activities and it also impacts your brain.



Ways you can stop screen time/conclusion

There are many ways to prevent a lot of screen time and most of them are easy to follow.

Here are some of them:

- 1. Set a timer to how much screen time you are going to watch and limit yourself to that much screen time only.
- 2. Get blue light filtering glasses.
- 3. Develop a hobby that will keep you away from screen time such as playing sports.

In summary screen time is unavoidable which is why it should be used optimally.