

"Mozart Helps Me Think"

**ALIENS'S
HEADPHONE: JOY
OF LIVING**



FOURTH EDITION

About Us - Developers



Jamyang Ugyen Tshomo was born on 20th November, 2003 at Trashiyangtse Khamdang in a beautiful village named Barpang. She is courageous as well as a rigorous person. She loves reading science fiction and learning about new innovations. She is always there to help and anyone can approach her at any time. She joined Bhutan Breakthrough as a researcher and lately she has been contributing in the artificial intelligence field of study.

She was fascinated by the beautiful sky painted with millions of stars and indeed full of wonders. She is optimistic to see a change in Bhutan space exploration in the next twenty years. Jamyang said, "We need to be more innovative and shouldn't be afraid to share our ideas out as every idea counts!"

Jamyang Ugyen Tshomo
Head of BB A.I



Born on 10th October 2001, in Thimphu and grew up in the eastern region of Bhutan(Mongar). Karma Sonam serves as the artist for Bhutan Breakthrough. He is an artist who illuminates our hearts by his great skills and imagination. He is conversant in all forms of art and has been earning through his arts. He is a slow worker but with determination. Besides arts, Karma is also interested in Buddhism and the traditional music of Bhutan. He is always positive for others and is always with the mindset of encouraging others. He has been running Bhutan Breakthrough's art division.

Karma Sonam
Artist, Head of BB Arts

Artificial Intelligence For Music

Instrumental music existed 40,000 years ago but what we understand as the essence of music, the rhythmic beat, could have started way before then. Music is a form of expression and it also identifies a specific group of people living in a region.



Image Credit: medium.com

We could see how songs and music evolved, to fulfill the needs of people in accordance with time. In today's era, it is quite evident how powerful and influential artificial intelligence is becoming in many industries and it is no different in the music industry. Have you ever imagined robots composing lyrics and creating music? Well, if you haven't, you don't have to imagine as it is actually happening in reality.

Artificial intelligence was leveraged by the music industry when Alan Turing, a computer scientist, first created computer generated music in 1951. Ever since, music industries have been developing AI that are capable of creating music. Companies are investing heavily in projects aimed to create AI music; Google's Magenta has created AI songs and Sony's Flow Machine has released an AI generated song, "Daddy's Car". AI creates music by analyzing prior compositions, understanding the characteristics of music and then creates a song that is pleasant to hear or that comes under a certain genre.

Apart from creating musical pieces, AI also assists artists in composing songs and music. With AI such as LANDR, artists can record songs inexpensively, without having to go to a music studio. Further, these AI tools help artists master their songs

According to Forbes report on July, 2019, 2 million musicians have used LANDR to master more than 10 million songs. The number could have increased much more than before in 2020.



Image Credit: telekomelectronic beats

Artificial Intelligence For Music

Jukedeck and Amper Music are other services provided by AI to help those who are passionate to create wonderful compositions.

If artists have the required skills to utilize AI tools effectively, they would be using time efficiently and also they would get financial benefits.

AI also aids the music industry in marketing songs. It suggests the listeners lists of new songs and gifts listeners with new pieces. Further, it recommends songs based on the listener's pattern of choice. Let's say, you listen to Justin Bieber's songs more often than others. Then, when you search for songs online the next time, it will suggest more songs by Justin. Why do you think this happens? When we are looking through different lists of songs, AI is behind us checking which artist's songs do we listen to most often. AI then searches for songs by similar artists and shows it to us.

AI acts as a very important assistive tool in recognizing rising stars with amazing talents; they judge it based on the number of views and fans that a particular artist has.

When AI impacts every walk of our lives, the question often being asked by people is will it replace humans in employment sectors? The definite answer is no. Rather, it will enhance work efficiency. Especially in the music industry, a group of musicians have founded ALYSIA, an app that helps to create songs. This empowers everyone to write songs whether or not you have tried before. Many profound musicians have said that AI helps them advance their skills and allows them to experience fresh ideas everytime. Therefore, we can imagine a future for augmented intelligence in the music industry.

AI is providing a new dimension in music industry as it does in every other industry. It is those who know how to utilize these resources that will reach far.

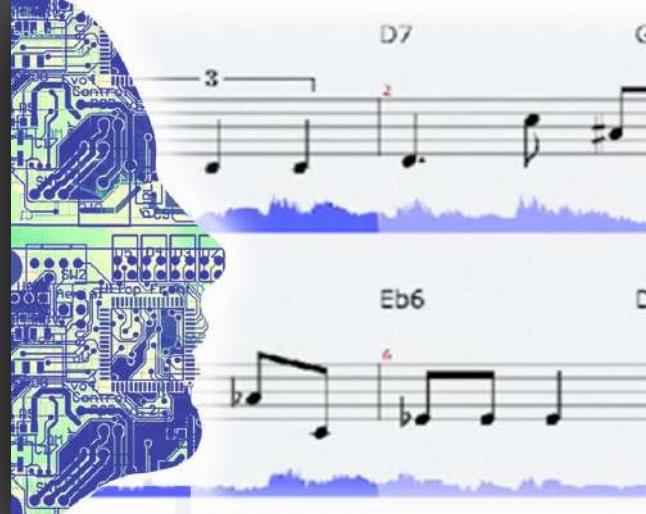


Image Credit: djtechtool

Edition Art and Quotes:



"Life is only a reflection of what we allow ourselves to see"

Set goals and chase them with all your determination. You won't get exactly what you have thought but if you really work hard amazing things will happen in your life. You will fail in life but accept the truth and move for the next challenge. This shows that you are discovering the unknowns. Remember that "your failure is another person's gain". So make the change in yourself for the greatest purpose for other's change.

Shacha

Beatles In Cosmos

The Beatles were a British Boy-Band from Liverpool which consisted of John Lennon, Paul McCartney, George Harrison and Ringo Starr all of whom were from Liverpool, England. Also known as the Fab Four, The Beatles is considered the most influential band of all time. During their time as a band, they incorporated many musical genres in their songs. Few notable genres being Rock and Roll, Indian Music and Psychedelia. They were the pioneers in the Music Industry having brought many revolutionary changes in the ways songs were written, recorded and presented to the audience. The band only lasted for 10 years but during that period of time, they produced record-breaking albums which topped the UK and US charts. They had 20 number 1 hits and 34 hit songs in the Billboard(the records which are yet to be broken.)The Beatles broke up in 1970 with each of them pursuing their own solo singing career. In 1980, John Lennon was shot dead by a mentally disturbed fan and in 2001, George Harrison passed away out of Lung cancer. Paul McCartney and Ringo Starr continue to be active in their musical careers and continue to inspire today's generation. The Beatles motivated a lot of people with their songs which always spread positivity. The band broke up but the impact that their euphonies made on the people is still visible today. So much so that their legacy reaches even the vast expanse of the cosmos



Beatles In Cosmos

Within 1983 and 1984, there were many minor planets being discovered in the Asteroid Belt located between Mars and Jupiter. 4 of those asteroids were named after The Beatles members:

4147 Lennon- Discovered by Brian A. Skiff on 12 January, 1983.

4148 McCartney-Discovered by E. Bowell on July 11, 1983

4149 Harrison-Discovered by Brian A. Skiff on 9 March, 1984

4150 Starr-Discovered by Brian A Skiff on 31 August, 1984

There has also been another minor planet which was named after the whole band; 8749 Beatles discovered by J. Broughton on April 3, 1998.

NASA has also honoured the legacy of The Beatles; On February 4, 2008 NASA transmitted a beam which consisted of a Beatles song called "Across the Universe" commemorating the 50th Anniversary of the founding of NASA as well as the 40th Anniversary of the day The Beatles recorded the song. The transmission of the beam was aimed directly at North Star, Polaris which is about 431 light years away from Earth. The song is travelling "across the universe" at 300000 km per second in the beam currently. Upon the transmission of the beam, Paul McCartney exclaimed, "Amazing! Well done, NASA. Send my love to the Aliens". Even the late John Lennon's wife Yoko Ono showed her excitement, marking the event as "the beginning of a new age in which we will communicate with billions of planets across the universe". This was perhaps the first time NASA had ever taken this kind of initiative but it was not the first time for a Beatles song to be sent to space. In 1977, Carl Sagan personally proposed that they include a Beatles song called "Here comes the sun" in the Golden record. However, the proposal couldn't get approved before the Voyager was sent to space. Years later, the song along with other Beatles songs like "Ticket to Ride" and "Hard day's night" would be sent to space as a wake-up call for the astronauts in the International Space Station. February 4 is now celebrated as "Across the Universe" day every year. During that day, fans from all over the world are seen singing "Across the Universe"

Mars is a beautiful planet surrounded by many space rocks including The Beatles of which we can make observations and study. If Human beings survive the next hundred years, who knows, we might even get a response to the song from aliens. It is said that the music in the soul can be heard by the universe. Here in Bhutan Breakthrough, music is considered a language. It is a universal language which doesn't need to be understood but to be felt.

Introducing Inside Bhutan Breakthrough's Documentation Team

Music as a hobby with Kelzang Dorji:

Back in 2014, on my way home, I saw a group of boys playing guitar; that's where music came into my life. Before that I have danced and heard people singing but I didn't know that music can have an impact in our life. Let us rewind to the beginning.

One afternoon, when I was washing my school gho, I heard someone playing guitar somewhere near my house. I went there and to my surprise it was the neighboring brother. He was playing very harmonious sounds. He used to let me play his guitar (He might be lazy because I have to bring it to his house later.)

He will be gone giving guitar to me. I would play random things and slowly I was trying to play like him. I would keep in my head how he played the guitar and then I would try to remember. After sometime he noticed that I was playing pretty well (not good though). He taught me some chords and basics about guitar.

Then I joined the Royal Academy. I met with Mr. Ben. He taught me how to tune a guitar. Slowly, I played guitar and friends would sing along. Gradually, I started to compose songs. I loved to do it. I would have stopped playing guitar but there were many encouraging people who inspired me and encouraged me to move forward. Then I formed a small group. My idea was to bring all the musical enthusiasts together and enjoy music.

My Quarantine Story With Jigme Tenzin Nidup:

Quarantine is considered a golden opportunity for us students. It is a time when we can reflect on ourselves and bring out the best in us. When the Black Death hit Europe in 1665, Sir Isaac Newton, who had just finished his Undergraduates degrees went back home and stayed home quarantined. It was during this period of time that he made fascinating discoveries; Linking the falling of an apple to planets orbiting and also formulating the Laws of Universal Gravitation. He made such ground-breaking discoveries that this period is often cited as the "Wonder years of Newton".

I was also motivated with what I could do during this period of time that could change the world but that is easier said than done. I spend my whole time looking at my book which hasn't been opened for ages.

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I finally decided to read this book which I had planned to read the day before that I couldn't do last week. As I opened my book to read, I heard a knock on my door. "Who is it?" I asked. A head bobbed from the door. It was a person I had never seen in my entire life. He had a pale skin and wore a black cap. His dress was just as weird. He was wearing a black robe as if he had just come from a Star Wars convention. "You" he said looking towards me, "Let us take a ride in space" I was utterly shocked; first there was a knock on the door by a person I have never met. Then, that person dressed up like Darth Vader looks at me and tells me to go with him into space. Of course, I wasn't going to take any of his words seriously. I snapped out of my thoughts and finally asked, "Who are you?" The man grinned as if he had expected that coming. "You got to believe in me boy" he said, "Believe me, I came here to take you to space" I still felt he was joking but the face in him said otherwise. We had a long gaze at each other until I finally spoke again, "Okay, so you are here to take me to space" the man nodded.

"But why me?" I asked.

The man stood there, silent again. He finally spoke with another wicked grin, "Why don't you find it out yourself. Let me tell you again boy. Come with me to space and the answer will be all clear." I continued to look at him. His eyes told me that I should believe in him and I did. I felt I had to. He took me outside where he said his space ship was. When I was outside, I eagerly looked at the lawn where I thought he might have parked the ship but it was in his pocket all along.

Seeing the spaceship, I started to believe that he was telling the truth. I hopped in the seat inside the ship and off we went to outer space far from home. As we went outside the upper atmosphere, I looked down to see Earth. It was just as it was described in the books; a breathtaking sight. I forward to see where we were heading to. As I looked closely, I finally realized why I was here. The man was taking me to a distant minor planet which was none other than Pluto. It had always been my life-long dream to go there and I had finally found someone who could do it to me. But who was that guy anyways. "Who are you?" I asked. He looked at me and replied, "I am the person behind the youtube channel you were following. I found out from the comments that you wanted to go there. So I did. Now is it clear to you?" I was shocked yet again. That guy from Youtube who never showed his face in his channel had a multi-million dollar tech that could travel to space and I was perhaps the first one to go with him. I felt special and lucky to go to Pluto. Even though it was a multi-million dollar tech, it looked like a normal car with the usual steering wheels and brakes etc.

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What surprised me however was that the speedometer read 296,790,000 m/s. That was approximately 99.9% of the speed of light. With that speed, we reached Pluto in 5 minutes or less. After a fantastic tour in Pluto, the two of us returned home. When we reached Earth, I realized something was different. I went back home but surprisingly, my home wasn't there. I was confused for a moment before I realized; I have been travelling at 99.9% the speed of light, that causes what is known as time dilation. On board, only 20 minutes had passed but here on Earth, 22 years had passed. To check my notion, I asked an old man nearby what year it was. To my horror, the year was 2042. Many thoughts came to my mind which only made me more anxious. I went to see the man again with lots of questions but the man was long gone. He had left me here. I couldn't control this fear and finally cried out loud.

"Oiiiiii", a familiar voice replied back, " Why are you shouting? I thought you were studying."

I opened my eyes to see my mother staring at me. She looked disgusted at how I was crying when in fact I was happy seeing her after having thought I lost her. The book was still in my hand. Page No. 15. Even though the dream was pretty scary, I atleast had a very good time in Space.

My Quarantine Story WIth Jamyang Ugyen Tshomo:

A message on my mom's Facebook in December last year signaled the outbreak of coronavirus, COVID-19. My mom showed it to me and I simply scanned through it; few phrases that clinged onto my memory were new disease outbreak, don't eat half cooked egg, prevent unprotected contact with animals, and wash hands! However, I took the message lightly and never expected it to turn into a global pandemic that would infect millions of people, lock down countries, shut down schools and offices, and bring a big change in our lives.

My wonderful school days abruptly came to a temporary end and I travelled back home at Trashiyangtse. I reached here on the 24th of March and since then, the greatest journey of my quarantine period, or my life, started. This experience was very new to me as it was to many people. It is not surprising when people experience stress, worry and strange feelings nevertheless, what is more important than anything is to adapt to this situation and contribute our part or the duty to our nation and the world.

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I spent my "quarantine days", though I would prefer calling it Awareness Times, helping my family. I try to learn stories and listen to their perspectives about different subjects such as the existence and the end of the universe and why we should pray, all explained through religious point of view; I also share my scientific understanding about this topic with them. Further, I took this time to share the memories and feel more connected with each other. More importantly, I update my parents and neighbors with news about COVID-19.

Normal school learning never stopped. My messaging apps and various other platforms are always there to remind me about assignments and notes in different domains. For me, it is intriguing how the internet connects us though we maintain distance and I often wonder, what if the future of the school system was online? We have uncountable bytes of data present online and we have access to it all. Isn't this great? These days, filled with unprecedented events and new changes, is teaching me a lot about time management. I try to engage myself in learning about space and getting a deeper understanding of artificial intelligence; I listen to Ted talks and get myself informed about different subjects.

From one of the Ted talks, I learnt that such pandemics occur due to our relationship with nature. We destroy the untouched part of the wild, thus leading to species extinctions which consequently leads to an unbalanced ecosystem. We also get diseases caused by bacterias and viruses, which are not found before, when we consume new meats.

As human beings, we are risking our own existence. Don't you think it is important that we do something different?

Graphical Art For This Edition



