

2022

English Newspaper by Boin High School Students

# THE BOIN TIMES



Sitting on the Stairway of Giant Boin

“ To love and win is the best thing. To love and lose,  
is the next best thing”

*by William Thackeray,  
British author*



**BOIN HIGH SCHOOL**

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Creative Experience Activities at Boin | Issues & Opinions  
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**BOIN HIGH SCHOOL**



Renew everyday,  
with justice,  
and beneficence.

Boin High School inspires students with passion for learning and to succeed in all they wish to accomplish while contributing to the global community.

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"I felt so sorry that we cannot enjoy this festival after graduating from this school. However, I think, it will remain all the time in our happy memories!"

*Kim Jae Yeon, Page 09*

"Thanks to our cafeteria ladies, we can get enough energy to study by eating very diverse kinds of meals."

*Oh Jae Won, Page 13*

"Data science is becoming more important and will matter even more in the future as the amount of data exponentially rises."

*Kwon Min Joon, Page 29*

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# Chairman of Daejoo Educational Foundation Mr. Kim Seok Han



## Let's Prepare for The Post-Covid 19 Era!

The disease named Covid-19 affected our whole life during the past three years. However, in these days, we are transitioning to the stable 'With-Corona' lifestyle. Experiences and wisdom that we earned from the Covid-overcoming process have accumulated to our benefit. So, we have to gather our Boin family's thoughts about what should be prepared in the new With-Corona phase.

By checking the capacity of an organization that struggles through a hard situation, we can predict the future of that organization. Everyone will expect the bright future of Boin when they see teachers who operate online classes efficiently

for a fine education that is identical to face-to-face classes and students who try their best in studying in a situation when it is hard to take care of themselves.

Now, there are many arguments about the post-Covid era in all levels of society, in the political, economic, social, and technical changes that originated from this unprecedented whole-planet disaster. Spending worthwhile time by remembering this year and preparing for next year, in the process of debating together about how to direct education's direction to grow our Boin's students' development potential for leadership, will be very beneficial for our students.

I would like to express my encouragement and gratitude to Boin Times students who tried their best to produce an English newspaper in hard conditions. Thank you.

*Kim Seok Han,*  
*Chairman of Daejoo Educational Foundation*

# Foundation

### Renew everyday

To renew everyday means to drive for the better tomorrow through continuous learning. If every member of the society seeks progress, the society will be able to take a major step toward building a better, a more civilized community.

### With justice

With justice means 'honesty'. Only when everyone is honest can we build a healthy society that can walk the right path. Hence, Boin High School endeavors to educate our students the value of honesty.

### Beneficence

Boin High School values charity. This is not necessarily restricted to donations, but rather incorporates the value of looking after each other during times of difficulty. We believe mutual relationship is the engine that keeps our society alive. For that, Boin High School cherishes beneficence.

Ever since I was inaugurated as chairman of Daejoo Educational Foundation, I was fully dedicated in providing the best learning environment for our students. I was able to bring outstanding teachers from across the nation and transformed Boin into an acknowledged academic high school. Today, every corner of Boin is filled with proud members of the community. Words cannot express my gratitude, and I look forward to the vast future that lies ahead of Boin! There is no doubt that with the support of all members of the Boin community, including students and teachers, Boin will continue to grow as one of the most accredited schools in South Korea. Thank you.





Students nurture all manner of relationships with peers and teachers.

## GREAT SCHOOLS have GREAT BENEFITS



Helpful lecture(Go on for your own dream!) for students in audiovisual room



School-violence prevention campaign with a warm lishcakes event



Fun and meaningful voluntary project, JUBGING



Prestigious victory of Boin soccer team in the national high school soccer league



Helpful lecture(Appropriate technology) for students in audiovisual room



PAPS measurement in Boin playing field

### Message

## Principal of Boin High School Mr. Kim Beom Doo



We cultivate talented persons who combine academic ability with right personality.

Welcome to the Boin Times!

Heartfelt congratulations on publishing the Boin Times magazine about your school life for the past year. Since it contains stories like the Boin Millenary, a small-scale theme-centered school trip, and various creative experiential activities, reading the magazine brings back to me memories of the enjoyable school life this year. Seeing the passionate, lively students and especially fresh ideas about the booths in the Boin Millenary Festival, I once again felt that Boin High School students are not only good at studying but also have talent in a wide variety of fields.

I sincerely hope that in the up-coming year, 2023(the year of the rabbit), all Boin High School students keep in mind the school motto, 'Renew everyday, with justice and beneficence,' improve step by step their self-management and creativeness, become more community-minded, and cultivate their humanity. We generally feel both pride and regret looking back on the year. I hope students can treasure their proud memories, utilize those for motivating themselves in later years, and become better young men each day by keeping in mind the proverb 'good laws spring from observing evil manners.'

I'd like to give a shout-out to our school's students through this magazine for spending their school time diligently. I hope that the graduating third grade students can keep their fond memories of Boin and pursue their dreams in society. The second grade students have now become third graders. Make sure you give it all you've got in studying and in preparing for college entrance so that you have no regrets when you look back on yourself. Freshmen becoming second graders should support the school as the center grade. Finally, I hope that freshman newly entering Boin High School will emulate their seniors' respectable characteristics and carry on the magnificent school life they've dreamed of. Sincere congratulations on your entrance to our school.

In closing, I'd like to thank Mr. Kim Seok Han(Chairman of Daejoo Educational Foundation) for putting effort into publishing the 'Boin Times' and give a big hand to the hard work of teachers Choi Jae Mahn and Andrew Pike and members of the Boin Times club. Thank you.

Kim Beom Doo,  
Principal of Boin High School



## Amazing and Interesting Experiences at Boin Millenary Festival!

### <AM>

On December 23rd, 2022, there was a huge event at Boin High School. A festival named 'Boin Millenary Festival' was hosted. The festival was divided into two parts. One was the experience of many surprisingly various and interesting booths and the other was performances in the gym. What I will share with you now are the activities at three booths, which were fully enjoyed by me.

What I really want to write about first is the "Boin Four Cut," hosted by the photo club. The name of this booth seems to imitate the photo booth named "life four cut". Also, the photo club's booth is famous at Boin for advertising a lot before and during the festival. The visitors at this booth selected between options of Christmas or basic, and it was possible to use any items that were prepared by the photo club. After these preparations, you could take four photos in front of the clean white background and with professional equipment and you could get your completed photos after you went through the open chatting room. In my opinion, the booth's entire quality and decoration were so satisfying. I think it helped us to make positive memories with school friends, and we could also feel the attractive inspiration of the members of the Boin photo club. Literally, "The photo is the only thing that remained." I think this booth was essential for those of us who were wondering how to make positive memories at Boin.



▲ The Christmas theme Boin Four Cut Picture by my friends



tattoo booth. The club members at this booth were able to attach a disposable tattoo to any part of your body, and also take a picture with it. The booth operator who took a tattooist role was so kind to participants, so that I could

enjoy that booth so much. In my opinion, this booth was a good complement of our festival. With my tattoo, I was able to have a happier mood while enjoying this festival.

The last are the casino-themed booths. While these two booths--Boin Land and Bosino-- shared the same theme, they had entirely different characteristics. I first went to the booth named BOSINO. It seemed to combine "Boin" and "casino" in its name. Entering the booth, I could see four big tables and a large picture on the blackboard. After a few minutes of waiting, the booth operator who served as a dealer brought some chips, cards, and a card-shuffle machine. We could choose a game, and my friends and I decided to play the most familiar one: "Black Jack". Thanks to the dealer, we could play in a speedy and funny way for a long time. In my opinion, it is so beneficial that we can make great memories with friends playing card games, together.

The other booth that was also casino-themed was named "Boin Land." It seemed to combine "Boin" and "Gangwon Land," which was very similar to Bosino. When we entered this booth, it was so dark that it could cause a unique mood. We should pick one of the multiple choices first. With this choice, participants could get some currency for Boin Land (candies!). Participants could get more candies by playing various games, and the person who submitted the largest number of candies before leaving the booth got luxury goods prepared by the booth workers. We challenged ourselves at poker in that booth, and the card combination was attached to the table so that we could play the game more easily. Thankfully, the dealer's rule explanation was very kind, and the game process was very smooth. But thanks to its remarkable system, so many participants gathered, and it was hard for us to enjoy it longer. In my opinion, enjoying the game wasn't more comfortable than at Bosino, but the goods distribution system was so innovative and thrilling, participants could also enjoy this booth not less than Bosino.

Booths were the core part of Boin Millenary Festival. Everyone at Boin High School could enjoy them, and the booth stamp system was also a remarkable attempt to fulfill Boin students' needs. So we could realize that this festival proceeded as a way of feeling enjoyment and fruitfulness. I felt so sorry that we cannot enjoy this festival after graduating from this school. However, I think, it will remain all the time in our happy memories!

10208 Kim Jae Yeon

### <PM>



Starting at about 12:10 on Boin High School's festival day, there was a live broadcast showing the finals of the e-sports competition. The two classes that advanced to the finals were 1-9 and 2-8. Through outstanding work by class 2-8's team, they won the championship. Students watching the game actively reacted and rooted for their team. After the match, from 1:00pm, there were performances by students from Boin High School as well as other high schools and organizations. There were, in all, 14 teams that performed. The sequence of the show before the break was : 1. ANIMA (일신여상) 2. BBC (보인고) 3. ASCENTION (창덕여고) 4. Eternity (가락고) 5. 형미넵 (보인고) 6. 일공사 (보인고)



There was a short break at about 2:00, and after the break, there was a prize lottery. 16 students got coupons to spend at the canteen. Then, a short video by Mr. Pike was played. The performances continued until 4:00 by the following teams: Namja Idle (보인고), Back to the Old School (동북고), HL Babies (한림예고), 삭이와아이들 (보인고), and The Creeps (보인고). Although it was quite uncomfortable to sit on the auditorium floor for a long time, many students commented that the festival was even better than they expected. Due to Covid-19, it had been 3 years since the Boin festival was held. So, many students were looking forward to it and the festival probably met their expectations. I hope that this festival can now continue as planned for the coming years.

20606 Kwon Min Joon



▲ The Class 1-3 students on the bus

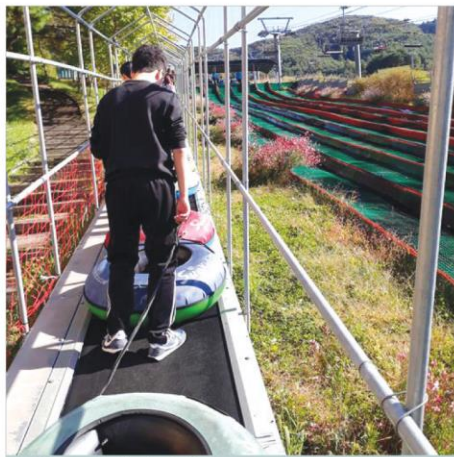
# Boin High School 1st Graders, Go on a Field Trip

Note : I wrote only major events for each day into the following text so that the readers won't get bored.

Compared to last year and the year before last, this year, because the spread of COVID-19 had relatively declined, Boin High School 1st graders were able to go on a field trip. Actually, I hesitated a bit about whether or not I should join them since I had worried about getting COVID at the waterpark, which was to be one of the places to visit. However, I determined to participate, because the fact that I could make amazing memories with my classmates had overtaken the worry. Now all I had to do was wait for the very day, Thursday, Oct. 13th.

## Thursday 10/13

On the first day of the two-night field trip, when I arrived at



▲ Going up to ride the sleigh

the school in a good mood, the front of it was already packed with 1st graders. My classmates were chatting in a friendly way to one another with their early excitement while our homeroom teacher was counting heads.

Soon after, we hopped on the bus, took a two-hour ride, and then got to Wellihillipark, located in Hoengseong-gun, Gangwon-do.

We started the first activity of this field trip with "Sleigh Ride for Four Seasons." I figured it should be possible to ride the sleighs literally in four seasons, because they worked with the water on the track. Though I'd been tired of waiting so long, as I slid down across the water, I could feel both refreshed by the wind and thrilled by the fast descending speed. Everyone must have enjoyed this activity, for sure.

## Friday 10/14

The morning sun rose. We headed out for the place to ride a luge. The luge we rode is technically called a "skyline luge," which is different from a sports luge on icy tracks. The skyline luge is a cart that one drives along a track about 1.5 km long. We went up to the starting point with a lift before we listened to the safety rules and how to drive the luge, which we then mounted.



▲ Enjoying the barbecue with beams of satisfaction



▲ Almost finishing the barbecue (They look so happy.)



▲ Watering one of the sheep by hand



▲ Watering the sheep with a spoon

The luge was pretty fast. So, I thought to myself while riding, "If I drive a car as an adult, this is what it feels like." Strange to say, whenever I succeeded in curves, I could feel a sort of pride as if I were the best driver. Still, I had been keeping up only a moderate speed, for I thought safety was most important.

I considered the skyline luge riding activity the most fun and the water park activity afterwards would be the second most. There I tagged along with some of my classmates and what I remember most is not only the fun, but also the extreme cold and warmth, which are absolutely different from each other. The water in the outdoor wave pool was so freezing cold that I felt my entire body was getting terribly numb. However, after that, the open-air bath area we dashed into, to warm our bodies, was just like heaven.

A barbecue had been in preparation when we got out of the waterpark. We all enjoyed the barbecue in the charming atmosphere that some yellowish lighting and the twilight had formed.

## Saturday 10/15

Every good thing is meant to come to an end. The last day of the field trip came to us in the blink of an eye. After cleaning up our rooms, we moved to where there was a sheep ranch by a gondola. There, we saw several sheep, and fed and watered them as well, which everyone did, except me. That is, I forgot that I was supposed to. Instead, my attention was caught by some

other beautiful stuff near the site and this made me return without seeing any of the sheep. Nevertheless, because I was able to see the harmonious landscape of Wellihillipark in the distance and the view that the mountains around it had produced, and because I took a bunch of beautiful photos, I just made up my mind to call it even.



▲ On the way back to each one's home

Well, now it's time to leave. We get aboard our bus bound for our school. After arriving, all the individuals having engaged in this field trip unload their baggage and are dismissed in various directions-with their own memories of these unforgettable experiences in their lives.

10302 Kim Gyeong Min



## SCHOOL SPORTS CLUB TOURNAMENT -THE DAEJU CUP

In the summer of 2022, Boin High School's sports club tournament, which was suspended due to COVID-19 in 2020, resumed after 3 years. The second graders participated in soccer, dodgeball, and basketball games. The event that the most students paid attention to was the soccer tournament, the Daeju Cup. All of the players enjoyed the tournament and played games passionately, responding to students' attention and support. Let's look at some moments of the Daeju Cup with photos.



This is a picture of class 5 and class 7 walking onto the field for the quarterfinals. The tension and expectation of the game are seen from players in the picture. In this match, class 7 beat class 5 and advanced to the semifinals.



In another match of the quarterfinals, class 9 won a dramatic victory against class 6. Class 9 suffered a forfeited defeat in the

1st leg. However, in the 2nd leg, they evened the score and won the penalty shootout. As the goalkeeper of class 9 blocked the last penalty shot of class 6, the players of class 9 and the crowd rejoiced together.



The next photo is of the third-place match. After losing the semifinals in a penalty shootout, class 7 won the third place match in another shootout. Class 12, which lost in the match, felt

sorry, and class 7 rejoiced and enjoyed the victory.



Class 3 and Class 9 met in the final. Class 3 scored a penalty and took the lead. In the second half, class 9 scored the equalizer. After a fierce battle, the game headed into a penalty shootout and, finally, class 3 won the title in the Daeju Cup.

20929 Joo Sung Il, 20932 Choi Tae Rim



## Students' Satisfaction with Our School Lunch

At our school, lots of students are satisfied with the school meals. Especially, when we eat dinner, the majority of students love the menu. There is a lot of variety in the meals and they are also extremely delicious because they include dishes which students prefer. According to the survey which was conducted with about thirty students of our school, the most preferred dish was the Tuna Mayo Bowl and the second favorite was the stir-fried pork. They generally liked meals that were with meat more than those with vegetables.

Teokbokki with various fried foods was also a very preferred meal. Asked what score they would give if 10 was the limit, the average score was 8.8, which is very high compared to other schools. Thanks to our cafeteria ladies, we can get enough energy to study by eating very diverse kinds of meals. I hope the cafeteria will keep making these delicious foods just like now!

10514 Oh Jae Won



## History of Boin High School

Boin High School, which continues the spirit of the former Guilshin Ililshin Uilshin, opened in 1908 to foster talent in Jongno-gu, Seoul.

It is a school established by the public, which began with donations from members of an academic society and general members, a fact which made it different from other schools. It was finally officially approved in 1909 and produced 16 graduates with its first graduating class in 1911.

In 1933, a Boin foundation, was established thanks to Lee Jong-seok, and the institution was reclassified as an ordinary school after overcoming financial difficulties and publicizing its name.

One day after a long period, there was a very proud and heartbreaking case. During the March 1st Movement in the Japanese colonial era, many Boin students were caught, and when the school was closed, all of the Boin students extended the class by an hour for a while, to fight against Japanese oppression. Finally, in 1978, the school was relocated to

Ogeum-dong. It changed its name to Boin Information Industry High School in 1999, and changed its name again to Boin High School, as we now refer to it, in 2006, when Kim Seok-han, the current proud senior and chairman, took on the role of its leader.

In 2008, a memorial event was held to mark the 100th anniversary, and in 2009, an artificial grass soccer field, which is the pride of the high school, was completed. In the same year, Boin was designated as an autonomous private high school, marking the beginning of its heyday. In 2010, the DaeJooGwan was newly built and Boin began the new school year as a voluntary private high school on March 2, 2011. It has held 112 graduation ceremonies with a history of being led by 24 excellent principals as of 2022, and has produced 17,147 proud graduates, making it a historic school with lots of tradition to look back on.

11019 Lee Seung Hyun

### issues & opinions

## The Mass Extinctions

For those of us who live a short life of less than 100 years in 300,000 years of human history, we have a long time, but we cannot compare it with the history of the earth. And before human civilization, there were five mass extinctions on Earth. Why did five mass extinctions occur? Let's take a look at them.

The first mass extinction, occurred in the Paleozoic Ordovician period. The Ordovician period was the second of

the six Paleozoic periods to see a diversification of arthropods and polar animals, and multicellular organisms fell to the



ground for the first time. However, a mass extinction occurred at the end of the Ordovician period, which wiped out 85 percent of the species. It is suspected that the cause was algae. Primitive plants such as moss entered the land from the mid-Aldobis period, but after land plants that absorbed inorganic salts died, phosphorus flowed into the sea and calcium increased by 60 times and calcium increased by seven times. As a result, a large-scale green algae phenomenon occurred in the sea, and in the process of decomposing it, most of the oxygen was consumed and marine life became extinct in large numbers.

The second mass extinction to be recognized is the third mass extinction of the Permian. The Permian extinction is considered the worst in the history of the planet, which wiped out 96 percent of the species on Earth. The Great Permian Extinction occurred more than a million years ago, and there was little ozone layer when there was also very little oxygen. The eruption of Mt. Ami and Siberian lava caused the earth's crust to crack



and emit carbon dioxide and greenhouse gases, which reached 300 times the amount that exists now. As a result, the earth's temperature rose by six degrees, and high levels of acid rain and fog were formed by the smoke of ships in the area of Siberia and Mount Ami. Overall, the worst extinction in Earth's history was caused by a combination of air pollution, global warming, water shortages, ozone depletion, soil pollution, and acid rain. Some creatures survived the extinction, and there was a species on the list called Saul, which accounted for 70 percent of land life and ruled as a species before humans ruled the planet.

The last known mass extinction is the k-pg extinction, often known as dinosaur extinction, which wiped out 75 percent of terrestrial life, leaving only reptiles and birds, but not small mammals and dinosaurs, as a transition to the new age. The impact of a meteorite larger than Mount Everest is believed to have caused the extinction when it hit Mexico's Yucatan Peninsula. In 1980, while exploring for oil on the Yucatan Peninsula, Mexico's state-run oil company discovered a crater 180 kilometers in diameter connecting the sea and land. After examining the crater, researchers found that the rich iridium layer of the crater in the meteorite becomes thicker as it gets closer to the crater, and is rich in minerals such as impact quartz produced by strong shocks. The presence of these minerals provided solid evidence that they were caused by extraterrestrial objects such as meteorites and asteroids.

We, humans, have achieved remarkable achievements in a short time compared to the 300,000-year history of Earth. We don't know how much of a futures we have, but if we don't pay attention, mankind could end up like extinct paleontology in the blink of an eye. Even now, climate change, global warming, pollution, and habitat destruction continue to occur on Earth. If we don't practice alertness, our human journey will not last for a long time.

10806 Kim San





## Novel Book Recommendation for Students Who Have Poor-reading Skills

Boin High School has many students who love math and science, more than any other subjects. Certainly, Boin students are much more talented than other students. However, on average, a Boin student's reading skill is lower than his calculation skill. Surprisingly, when I interview my friends, there are some who have never read a book for their own pleasure. For these reasons, I want to recommend three novels for those poor-reading students!

What I really want to recommend first is Harry Potter by J.K. Rowling. I think that most students may have first become familiar with the story in movie form. The Harry Potter movie was well-made, and the computer graphics are also good. However, when you read a book, your attention is caught with the writer's cool writing skills and the book's interesting content. The characters' have a variety of personalities, and the writer's words activate our imagination. A wand-choosing scene or a quidditch scene are enough to touch you. In my opinion, the best book in the series is Harry Potter and the Order of the Phoenix, which has the most attractive character, Sirius Black. After you read this book, in order to experience the story in greater reality, I recommend that you visit Universal Studios in Japan.

The second book that I want to recommend is Little House on the Prairie by Laura Ingalls Wilder. Although this book series was also made into a drama series in the 1970s, you may not know about it because it is a really old American show. This story is an autobiographical novel series written by Ms. Wilder, progressing through her experiences. This series,

which starts in a small cabin in the 1800s, mainly includes the content of daily life. But it also includes interesting events that we have never experienced. For example, we can see a rain of grasshoppers in this book! Generally it shows a quiet mood, and the story's pleasant and harmonious family will make you laugh. When you see Laura's dad, you will not be untouched by him. Nine books are available in the series. The main character, Laura, who is 5 years old in the first book, gets married in the ninth book. By seeing this flow of time, readers will sometimes receive the feeling of grief. If you want to experience the life of a long-ago American family in around about way, or feel the freedom of nature in reading, I strongly recommend this book to you. By the way, my favorite book in the Little House on the Prairie series is the fifth one, named Farmer Boy, which is the story of Laura's husband, Almanzo.

The last book I want to recommend is Twenty Thousand Leagues Under the Sea, a work of science fiction by famous novelist Jules Verne. A name that students may have heard, 'Nautilus submarine,' came from this novel. For the main element of the story, the main character named Professor Arronax, his assistant Conseil, and harpooner Ned are traveling the deep sea by riding in the Nautilus. The best part of this book is the scientific principles about the Nautilus, which are described in detail, and will interest you so much. The more you read it, the more you think that the writer was truly a genius.

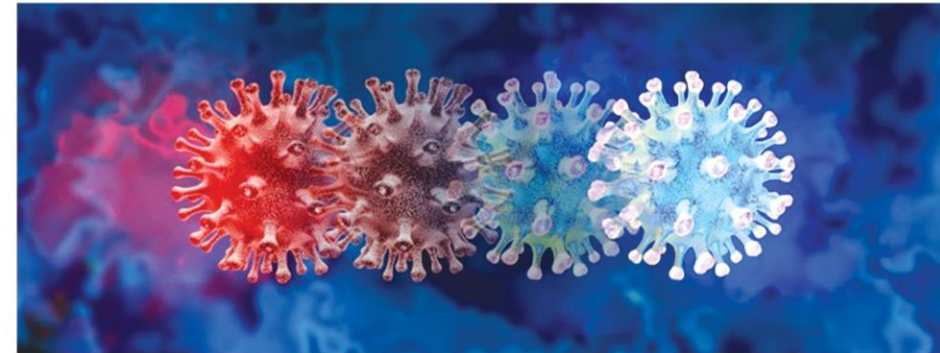
The space of the deep sea, which is the imaginary world of

the writer, makes you surprised, sad, even scared. The most mysterious character, named Captain Nemo, will not fail to attract you. Students who are interested in science or the mysterious world will love this book even more than I did. I strongly recommend this book to such students.

So, I have recommended three novels to you. This may have

bored you, but I really want to believe that one of you is becoming interested in such books because of my article. Thank you for reading this and have a pleasant time reading the novels!

10208 Kim Jae Yeon



## Mutations of COVID-19 And How We Should Act to Prevent It from Further Spreading

Coronavirus is a disease that has spread since November 2019, and it is suspected that it first occurred in Wuhan, China, and has caused 530 million cumulative confirmed cases and 6 million deaths as of May 27th. From January 2020, it began to spread beyond China and into other parts of Asia, and now 6% of the world's population has been infected. Corona has many mutations, typically about 15 mutations such as alpha, beta, gamma, and delta. The newest mutations have a lower fatality rate, while also having a higher contagion rate. Typically, the current Omicron mutation is 613% more contagious than the original coronavirus, while the fatality rate is -69% lower. Omicron was discovered in a country called Botswana on November 11, and the number of corona-confirmed patients worldwide has increased significantly due to that variant of the virus. Korea was one of the countries that was hit directly by Omicron, the first case being discovered there on November 25, 2021 Since then, the number

of confirmed cases has risen from 428,000 to 18,700,000 worldwide, an increase of about 42 times in about six months. The delta mutation, which was prevalent in the past, was first discovered in Maharashtra, India on March 24, 2021, and the first case in Korea was confirmed on April 18 of the same year. The delta mutation greatly exceeded 100 confirmed cases per day, which was much higher than the normal rate of infections at that time, and increased the number of confirmed patients considerably due to factors such as breakthrough infection that penetrated the vaccine and the vaccine universalism that was prevalent in the early days of the vaccine. Currently, the spread of COVID is slowing down, but a new mutation can cause many people to catch it again. So, for a quick return to daily life, it is recommended that you follow the quarantine rules.

10119 Lee Jang Ro



## Let's Consider The High School Credit System!

Have you ever heard about that education system? I think nobody knows about it. In fact, this information may not be very important for us because we are already in high school and will graduate within the next couple of years. The high school credit system is an education system that puts the choosing of classes in students' hands. This system will take effect first in Meister high schools and some regular high schools, and takes effect full-scale from 2025. I felt very interested when I got this information, so I will explain this education system to you.

In this high school credit system, students must take common subjects, selective subjects, and creative-training subjects and get credits for successfully completing each one. The credit system requires a total of 192 points, or credits, for graduation. By way of analogy, early graduation is impossible, so it seems very similar to the college system. The form of this system is taking common subjects in first grade, and taking selective subjects in second, and third grade. I think it is also similar to what we do now with selective science subjects. And the students must complete various subjects in order to graduate from school—not only the main subjects, such as Korean, English, math, science, and social studies, but also interesting and unbelievably various selective subjects. Some selective subjects have many interesting and enjoyable activities such as travel geography, sports life, and reading American-English literature. Also, the types of creative activities are based on the career-exploration clubs which we have now. Students who want to graduate from high school should finish these three types of subjects. I expect this will put huge pressure on them.

With this system, I think there are many changes coming in school, more than our expectations. First, the role of the homeroom teacher will shrink compared to what it is nowadays. That is because the classes that are followed based simply on a student's future career will become more important. Also, the

movement between classrooms can be much larger greater than nowadays. By being responsible for choosing their own class schedules, students can come up with many thoughts about their future jobs. And choosing their own careers will be easier than now. The advantages, or pros, of this system are the improvement of self-studying and the respect of various types of people.

However, we can not ignore the cons. First, it will be so hard to transition to this system. For this, we need experts about this kind of education. This will be 'not so easy.' Also, the problems of an absolute grading scale are reinforced, and the gaps between people who are educated and un-educated will become much bigger than now.

In my opinion, this system is not perfect for our society. While it may be a great system as it raises the liberty of students and can offer early experience with a college-style education, it can cause bad effects like shrinking the value of private high schools. Also, in Korea, the power of major subjects is still so strong that it can be hard to transition to this system.

We've been learning here about the high school credit system. Although this explanation might not be helpful to you, this knowledge can help your younger acquaintances. Thanks for reading!

10208 Kim Jae Yeon



## Humanity's Challenges in the 21st Century Environment

In recent years, Korea has shown the fastest economic growth in the world. The basis of that growth was industrialization, as in all advanced countries. Unfortunately, the unavoidable problem of environmental pollution has arisen in Korea. In this article, I would like to consider two representative environmental problems.

### 1) Taean Oil Spill

The Taean oil spill caused the greatest amount of damage among such spills in Korea, and the cost was enormous, reaching 734.1 billion won. The main cause of the spill is believed to have been a crash between ships due to bad weather. The spill was a very large incident, and the damage has not yet been fully recovered from.

### 2) Phenol Incident in Nakdonggang River in Daegu

The case was a long time ago, but it was so damaging that it is included in all-time environmental pollution cases. A company poured 30 tons of phenol solution into the Nakdonggang River without permission. It was a huge case. Based on the



dispute settlement, the cost of the damage is estimated to be about 1,32 billion won to 1,60 million won. In fact, if you apply it to the data on the increase rate of the Jiajang price, the

cost will increase by about four times to 11,695.6 billion won as of 2022. Even considering that this data is an extremely rare part among countless damage cases, it is a huge amount.

### 3) My Thoughts on Environmental Pollution

Above, I shared details of representative cases of the greatest environmental pollution in Korea, and there is something to be aware of. The cases I referred to are only examples, and even the damage caused by these disasters is expected to increase and never decrease. The problem of environmental pollution is so huge and important that you may think it's not your job, or you may think it's something you can't change.

That idea may be right. However, we have a "power of interest" that can overcome this phenomenon. Not only is it possible that the incidents we considered will never happen again if we just watch with interest all businesses, government departments, major companies, and international organizations, but it is also very important to solve the basic problem. That is why we must watch those organizations' actions carefully. And I want everyone to know that this is no longer merely an option, but an essential duty.

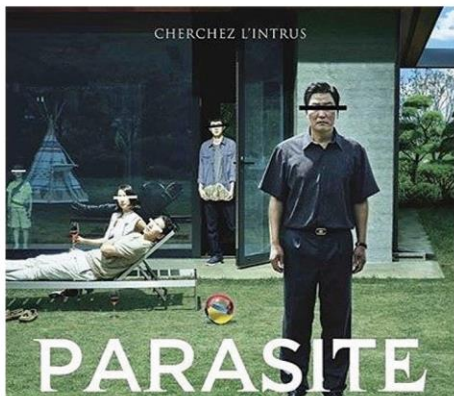
11019 Lee Seung Hyun



## The Secret of the Globalization of K-Content

Recently, Korean K-pop, food, cosmetics, and several Korean Netflix series have become popular all over the world.

BTS is already a world-star group, as everyone knows, winning the Billboard Music Awards for the sixth consecutive year. They have addressed the UN, and they received a Grammy nomination. Also, Parasite has become a world-class



movie, winning the Palme d'Or at the Cannes Film Festival. Many Korean Netflix series such as Squid Game, Now Our School, Kingdom and Sweet Home are also popular overseas. Squid Game was an especially huge hit, with many foreign viewers copying the Korean traditional game "Mugung Flower Bloomed" that was shown in the drama. Parasite won the Best Picture Award and Squid Game won the Golden Globe Best Supporting Actor award at U.S. award ceremonies.

So, what is the secret of K-content becoming famous?

-> The first factor is a global platform like YouTube.

YouTube promotes and distributes Korean content around the world. Content is reproduced and promoted even through YouTubers' reaction videos and comments. Recently, due to COVID-19, people's time to watch videos has increased as they spend more time at home. As a result, platforms such as YouTube and Netflix have become more famous than before, and Korean content has begun to see the light on YouTube and Netflix.

The second factor is empathy. Currently, various contents such as music, dramas, webtoons, and movies reach people through expressions of empathy. For example, in the case of BTS music, it comforted listeners by singing about the pain



and hope of all the young people living in this world and also gave hope to everyone with songs in the dance pop genre when the life that most people took for granted was gone due to COVID-19. Like the drama Squid Game and the movie Parasite, it showed conflicts and situations between the poor and the rich that can be seen around us, highlighting the problems of the gap between the rich and the poor that the world is currently experiencing, giving many people interest and enlightenment.

Even now, a lot of new K-pop music, dramas, and movies are being produced. The greatness of Korean culture will continue to grow.

20106 Kim Seo Joon



## Game : MapleStory

MapleStory is a game that used to be a huge hit. However, it is performing very poorly now, because of the probability manipulation incident that occurred in February 2021. First of all, let's look at the occasion when probability manipulation became known. On February 18, 2021, Congressman Lee Sang-heon, through a press release, criticized the game industry's problem of nondisclosure and speculation of probability-type item probability, arguing that legal regulation was necessary. Probability uniformity patching was being performed. The result of the patch was that all the probabilities were not equal, and some probabilities were higher and lower, and users who spent hundreds or even tens of thousands of won to draw

specific stats could only get angry at this fact. If the incident had ended with that alone, public opinion would not have been so bad, but due to the subsequent response, many more incidents occurred, and Maple Story's image was destroyed. First of all, the game company said that they met the users' representatives and had a discussion, but in fact the company selected the representatives. Furthermore, the image of both the game and the representatives was bad due to baseless criticism of the user's discussion forum, and that made users shift to other games.

10119 Lee Jang Ro



▲ Image 1: The Location of Mogadishu



▲ Image 2: Ambassador Shin-sung Kang

# Escape from Mogadishu!

## The Outbreak of a Civil War

In 1991, lots of shots from guns and cannons spread across Mogadishu, the capital of Somalia, which is located in Eastern Africa. This was the sign of the beginning of a civil war between the government forces led by General Siyaad Barre and the rebel forces led by General Mohamed Farrah Aidid. At that time in Mogadishu there were 7 Korean citizens. One of them was Ambassador Shin-sung Kang and he had been in charge of South Korean diplomacy in Somalia for 3 years—since 1990. All he had to do in these surroundings, where guns were being fired with no mercy, was to help the other Koreans escape from Mogadishu safely. Fortunately, they succeeded in meeting him. However, there was a problem. Every communication connection in Mogadishu had been paralyzed, which severed contact with Korea So, Ambassador Kang told his six fellow South Koreans to head over to his house, and a long escape journey began.

## The South and the North Koreans' Encountering Each Other

Still, they had some hope. One day, one of the Koreans came up with the brilliant idea that they should get help from Korea by asking the Mogadishu Airport's control tower, whose connection could be not dead yet, to call a Kenyan airport control tower, so at last the Kenya airport's staff could contact Korea. And luckily, as the connection of the Mogadishu Airport's control tower was not shut down yet, they received a reply from the Korean government that a rescue plane would arrive the following day.

That next day, although they reached the Mogadishu Airport to race to the exit of the waiting room, it had already been firmly closed. In fact, the plane which they expected to get on

was not theirs, but the Italian citizens.' It was a misunderstanding between the control towers that resulted in this terrible situation.

While they made their way back to Ambassador Kang's, they ran across 14 North Korean citizens who were isolated in Mogadishu as well. An awkward and weird atmosphere between the North and South Koreans engulfed them. The North Koreans said they were still there because their belongings had been stolen by armed robbers during 8 assaults. In retrospect, we now know that the Mogadishu Airport was what the government and the rebel forces fought each other for. Contemplating for ages whether or not the North and South Koreans should escape together from Mogadishu, which was now the land of the dead, Ambassador

Kang suggested to the North Koreans that they go to his home, saying, "If you stay here, things could be dangerous." And that suggestion was accepted.

## Preparation for the Escape

Now being companions, they put their heads together to get out of the always-looming disaster. Their last hope was to make it to the Italian Embassy in order to ask someone to support a rescue plane. Mr. Kang fulfilled that mission all by himself, because if all had gone there, they would definitely have gotten into trouble. Thanks to his bravery, they were able to get one rescue plane.

However, there was another problem. As they exceeded the capacity of the plane, an Italian ambassador said only the South Koreans could evacuate first, a directive which was opposed by Mr. Kang. He begged for more planes for the North Koreans. So the Italian ambassador arranged for another plane for them. At this point, we're able to notice selfless attitudes toward them.



▲ Image 3: The North and the South Koreans heading to the Italian Embassy together (from the movie, 'Escape from Mogadishu')

Ambassador Kang and the others returned to his house and he put them in 3 cars and a van. The next mission they had to complete was making it to the Italian Embassy and staying safe there until the plane arrived. Though it was only a 10-to-15-minute ride, it could be extremely dangerous because of gunfights all around them. So, while Somalis prayed to their God (those prayers take about 10 minutes.), the Koreans started to venture to the Italian Embassy. But suddenly, one North Korean who had been driving the car was shot in his chest area. Nevertheless, he didn't stop at all, in spite of his bleeding, and finally they got to their destination.

Staff at the Italian Embassy didn't let them enter the compound at first because they couldn't verify their identities. So Mr. Kang got out of the car, held up the Korean flags which

had been tucked inside the car, and waved them desperately, yelling, "WE ARE KOREAN DIPLOMATS!" Despite his efforts, the Italians still didn't open the door. Then, surprisingly, even North Korean diplomats began waving the flags back and forth, too. The sense of differences between the two groups didn't matter when everyone wanted to survive. Finally the door opened, but, unfortunately the North Korean diplomat's heartbeat stopped forever.

## Successful Escape



▲ Image 4: Their Success at Having escaped from Mogadishu to Kenya's Mombasa Airport (from the movie, 'Escape from Mogadishu')

Because Somalia was colonized by Italy a long time ago, it was highly influenced by it. So, on the day the Koreans' final rescue plane came, the Italian Embassy had taken action against the Somali government so that the government and the rebel forces could not fight while the 20 North and South Koreans moved toward the airport. Even though there were numerous difficulties, their planes took off from Mogadishu Airport. And this long story ends with their arriving at Kenya's Mombasa Airport.

10302 Kim Gyeong Min

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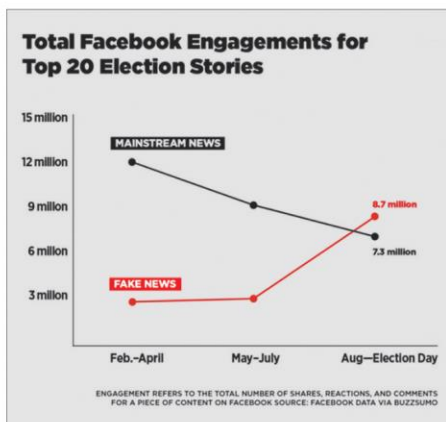
## Social Issue : Fake News

Fake news has become socially close. The characteristic of '21st century false news' is that there is a global IT company at the apex of the suspension. Fake news is no longer spread through agitation or word of mouth. Do you have the header of an 'official article' on a media platform with an easy interface? Fake news in disguise is easily priced and spread if people's producers are hit. The channels through which the public copies news are used as digital media platforms, such as portals and social network services, from traditional media such as newspapers and broadcasting. IT companies such as Google and Facebook were created as 'digital news mediators' and at the same time became hotbeds of fake news. The fact that the fake news that 'Francis at last declared his support for Trump' was the most shared news on Facebook during the US presidential election showed this well.

So, why is fake news so widely shared? The reason has to do with money. There is not advertising directly on fake news sites. All advertisements go through advertisement mediation services such as 'Google AdSense' operated by Google. Advertisers pay a brokerage, and the brokerage places ads according to the number of views. The higher the number of views, the higher the ad placement. Therefore, stimulating content such as fake news becomes money.

Recently, IT companies felt responsible for fake news and

decided to solve the problem. Facebook acknowledged the seriousness of fake news and launched the 'Facebook Journalism Project.' Google also decided to block fake news, announcing that it would "work hard to improve its search engine algorithm." Google was at the center of controversy during the last U.S. presidential election when fake news that "Trump outnumbered Clinton" was placed at the top of the search engine. Facebook decided to conduct a fake news



filtering test in Germany ahead of the September 2017 general election there. The filtering test is simple. When a user reports fake news, the non-profit media organization 'Corrective' goes through a fact-checking process. If it is determined to be fake news, a warning notification pops up when users share that particular news content. It is also excluded from the algorithm.

But it remains to be seen how effective these measures will be. There is a limit to blocking fake news by fact checking based on user reports. This is because it is difficult to catch up with the speed of production and spread of fake news through post-reporting methods. It is

doubtful whether the measures to restrict profitability will have as much effect as expected, as the company did not disclose specific action plans.

In the end, continuous attention and a critical approach to personalized algorithms provided by IT companies are required. Ahead of its presidential election, South Korea is stepping up crackdowns on fake news, an effort that is led by the National Election Commission. However, countermeasures that focus only on punishment have major limitations in blocking fake news.

10516 Lee Dong Geon

## About the school English newspaper club THE BOIN TIMES



Interested in an opportunity to enhance your English ability?  
Join a club at your school for establishing a school newspaper.

- ✦ The only English-related school club
- ✦ You can write articles of ANY interest
- ✦ Voice your opinion, ideas, and ideals
- ✦ Learn the value of solid research in writing
- ✦ Build closer relationship with your friends and seniors



# Controversy about the 2022 FIFA World Cup in QATAR

The FIFA World Cup–Qatar opened on November 21st, 2022. This World Cup, the first one held in winter and the last to be carried out using the 32–nation system, is getting a lot of attention because it’s likely to be Ronaldo and Messi’s last World Cup and an enormous amount of capital was invested in it. However, along with positive aspects, there are also negative ones.

## Corruption in the process of the attraction



4 years after Qatar was selected as the host country of this World Cup, (Sunday Times), an English media outlet, reported that Qatari Mohammed bin Hammam, who had been president of the Asian Football Confederation, had bribed FIFA with nearly five million dollars for the hosting of the World Cup in Qatar. FIFA officially announced that there had been no corruption in the process of choosing a host nation, but Michael Garcia, a former FIFA investigator, and BBC,

British public broadcasting, refuted that. Furthermore, FBI and French prosecution investigated this allegation, and Michel Platini, a former UEFA president, was arrested on suspicion of taking bribes in connection with hosting the Qatar World Cup.

## Exploitation of construction workers

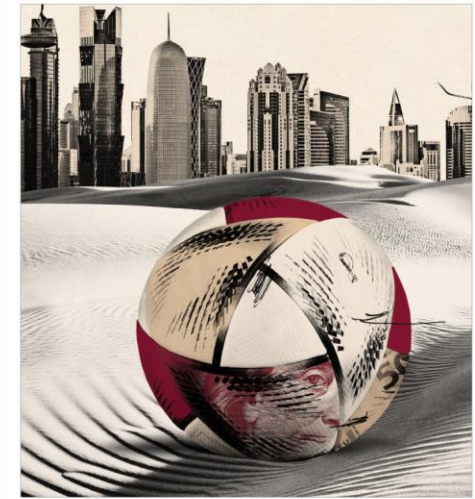
After it had been determined to hold the World Cup in Qatar, a lot of laborers were hired for stadium construction,



However, the laborers came to work in a very poor environment. In 2015, the International Trade Union Confederation (ITUC) said that workers who were put into the construction worked in poor conditions where

temperatures reached about 40 degrees and they earned only 1.5 dollars per hour, which failed to meet minimum wage standards. In addition, Amnesty International announced that laborers worked 12 hours a day, all week, and some of them worked without a day off for 5 months. Eventually, Qatar’s World Cup Organizing Committee admitted that there had been some cases of illegal labor issues. Since the construction began in 2010, about 6700 people died in stadium–construction–related incidents.

## Schedule



Qatar’s World Cup was held in winter, unlike the previous World Cups, because in summer when the previous World Cups were held, the temperature in Qatar approaches 40 degrees. By determining to hold the Qatar World Cup in winter, it became unavoidable to readjust the schedules of football leagues around the world. For example, the K–league and the English Premier League (EPL) advanced their opening dates because of the World Cup. Because of the readjusted schedule of the World Cup, players had to play in tighter schedules in their league seasons, increasing the risk of injury to them. Moreover, this World Cup will progress more tightly in a shorter period and therefore there is the possibility that players will be overtaxed physically.

20932 Choi Tae Rim

The screenshot shows a news article from The Sunday Times. The main headline is "Plot to buy the World Cup". Below it, there is a sub-headline: "Huge email cache reveals secrets of Qatar's shock victory". The article is dated 25 September 2013. The author is Pete Pattison in Kathmandu and Doha. The article discusses the exploitation of migrant workers preparing for the 2022 World Cup. There are social media sharing options for Facebook, Twitter, LinkedIn, and Email. A video player is visible at the bottom of the article, showing a man holding a document.



## Data Science : The Key Technology of The Future

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems. It is constantly evolving as one of the most promising and in-demand career paths since it is a relatively new and rising field. Data science is an indispensable concept in today's world since all kinds of data needs to be analyzed in the right way.

### What is data science and its process?



Data science is the domain of study that deals with vast volumes of data using complex machine learning algorithms to find unseen patterns, derive meaningful information, and make business decisions. There are four main processes of

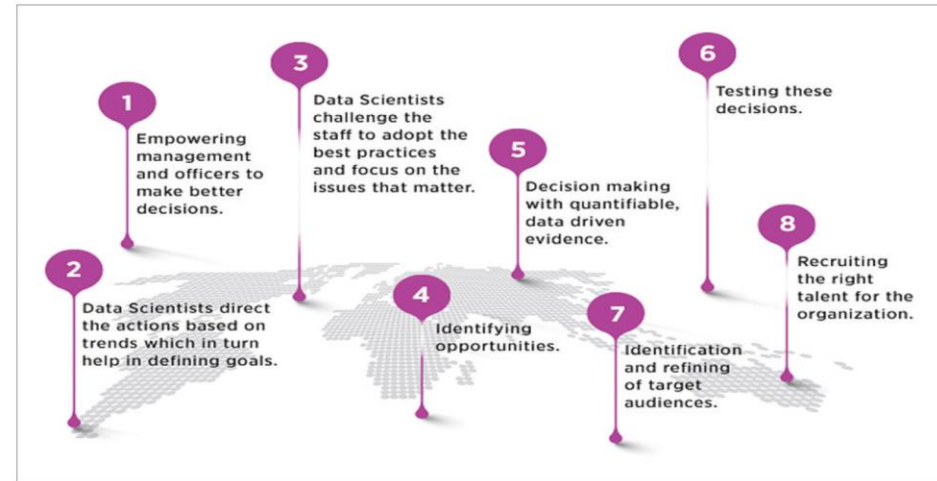
data science. The first is data exploration, which takes up the most time out of the four components. Since the data we want is rarely in the correct form, we need to get rid of the unwanted data. As a result, we do sampling and transformation of data and the data is readied for further use. The second step is modeling. We use actual machine learning algorithms in this process and fit the data into a model. The selection of a model depends on the type of data we have and the business requirement. The third step is testing the model. This step is essential and important concerning the performance of the model. If we don't get the accuracy or performance we expected, we can go back to the second step and select a different model, which might be more satisfying. The final step is deploying models. We finalize the model that gives us the best result as per testing results and then deploy it in the production environment.

### Why does Data Science matter in today's world?

Data science is becoming more important and will matter even more in the future as the amount of data exponentially rises. It can influence countless fields such as retail, medicine, banking, and education, just to name a few. But, business will probably be the field that utilizes it the most. To begin with, data science helps decision making. It provides you with quantifiable, data-driven evidence which increases the chance of making a superior choice. Data scientists create models using existing data and it rules out the need to take high-stake risks. An organization can learn which path will bring the best business outcomes.

Another point is that data science helps with the identification and refining of target audiences. Most companies have at least one source that can gather

information about customers, but this doesn't mean that these companies use it in a meaningful way. With the help of data science, however, it is possible to use existing data that is not necessarily useful on its own and combine it with other data to learn more precisely about the target audience. With this data, companies can tailor services and products to customer groups and can increase their profit margin. Last but not least, big data and data science help to recruit the right talent. In the past, recruiters had to read through a lot of resumes, which was arduous work. Thanks to data, this is changing. With the help of data scientists and the information provided in social media, corporate databases, and job search websites, organizations can make a speedier, more sensible choice that fits their needs.



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### The Future of Data Science

The spread of data has just begun. It will become more and more important as time goes by, and will influence countless fields at exponential rates. The key contributor to the development of data science is machine learning. It can be influential by giving advanced search results to the user, providing code-free environments, and also by contributing to quantum computing. Since machine learning is also developing rapidly, it will certainly help the growth of data

science. Career areas need to constantly evolve and undergo changes for opportunities to arise and flourish in the industry. Data science opens a broad career path that is constantly undergoing developments. The field is growing more quickly than ever, and it looks to offer even more opportunities than ever.

20606 Kwon Min Joon



## Self-driving Technology of Automobiles

With the recent development of IT technology, autonomous driving technology, which is the core of such IT technology, is receiving a lot of attention. Self-driving technology is being used in many fields, but in this article, I would like to consider self-driving cars. An autonomous vehicle refers to a vehicle that can operate on its own without being manipulated by a driver or passenger. Self-driving technology has been proposed since the 1960s, and full-scale development began in the 1970s.



Autonomous driving technology utilizes a technology called SLAM (simple localization and mapping). SLAM is a field of mapping by robots, and, like its name, it is a technique to map the surrounding space that you do not know and at the same time estimate where you are on the map. Multiple sensors attached to the vehicle and offline maps are combined and utilized. In addition, deep learning technology that gains artificial intelligence based on the collected big data is being used.

If self-driving technology of automobiles develops and self-driving cars are commercialized, our lives will be different in many areas. It is expected that the commercialization of autonomous driving technology will reduce traffic accidents and retaliatory driving. In addition, the complete replacement of human drivers will lead to a reduction in traffic congestion and eliminate the need for traffic police and car insurance.

There is, however, a security problem with self-driving cars. If security vulnerabilities arise, someone may

intentionally cause an accident. In addition, there is an unemployment problem, because when autonomous driving begins in earnest, the demand for various driver jobs such as with taxis, buses, courier vehicles, and trucks is expected to decrease significantly.

Self-driving cars can be commercialized only when these problems are solved and laws and regulations are supportive. I hope for a future like that.

10122 Jung Myung Geun



▲ Korean Air Using Sustainable Aviation Fuel on Incheon-Paris Routes

## Sustainable Aviation Fuel

These days, the need for carbon neutrality is greatly increasing, thus becoming a social issue. Currently the aviation industry's carbon emissions make up to 2~3% of total worldwide carbon emissions. So, due to the increasing needs and requirements for carbon emissions reduction, the French government has passed a law which requires local jet fuel suppliers to blend aviation fuel with at least 1 percentage of Sustainable Aviation Fuel (SAF) instead of using 100% conventional fossil-fuel-based aviation fuel.

Furthermore, airlines are making a move to more eco-friendly flights. Korean Airlines, for example, has decided to use SAF for its Incheon-Paris routes. It has also stated that

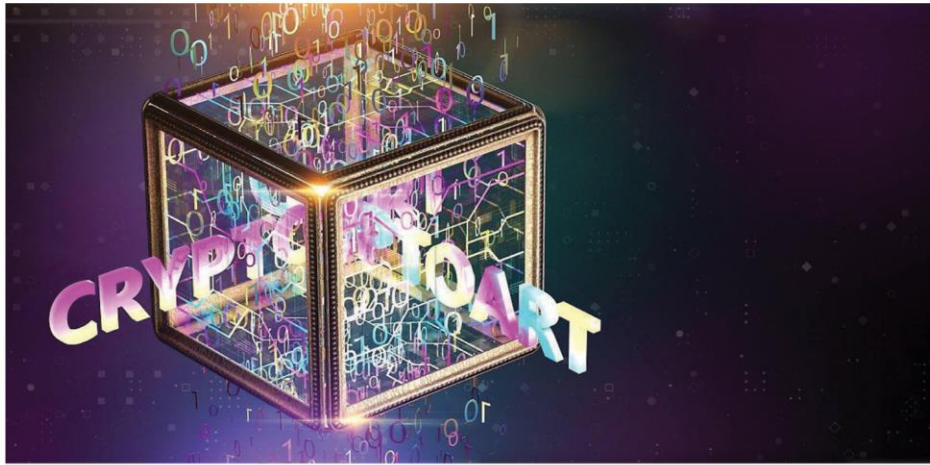
the cost of SAF is 2~5 times higher than conventional aviation fuel, but is expected to reduce carbon emissions by up to 80%.

Also, in June of 2021, Korean Airlines announced a partnership with Hyundai Oilbank to develop biofuel manufacturing, which is expected to further lower SAF production and supply costs.

From these above-mentioned efforts, a cleaner and more sustainable aviation industry is expected.

20324 Hwang Dong Whi





## The Future of digital assets, NFT

The meaning of “non-fungible token”, is this: it is a virtual asset that cannot replace a blockchain token with another token. This is a means to digitally tokenize existing assets such as games, works of art, and real estate by clarifying asset ownership.

Since an NFT is based on the blockchain and all related information such as ownership and sales history is stored on the blockchain, the first issuer can be confirmed at any time, and forgery is impossible. In addition, while existing virtual assets such as cryptocurrencies have equal conditions depending on the issuer, NFTs have their own unique recognition values and are not exchangeable with each other. For example, the price per Bitcoin is the same, but if an NFT is applied to a particular Bitcoin, that coin will have



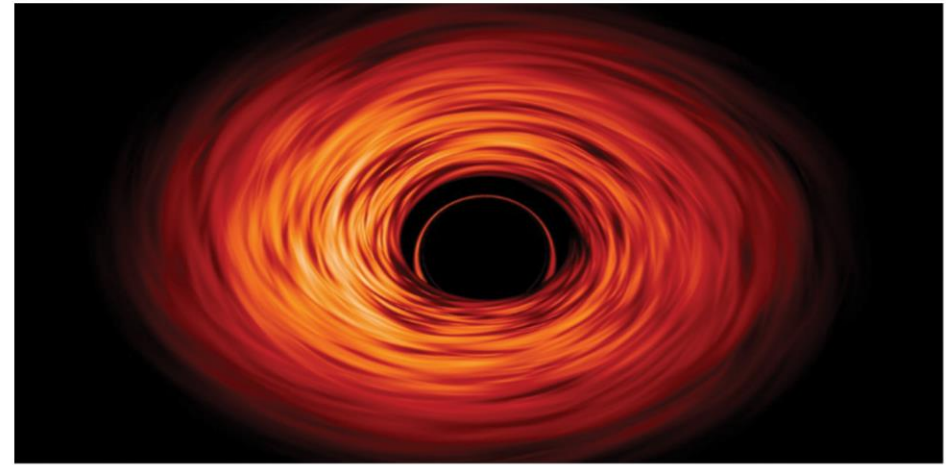
a separate recognition value that is irreplaceable with other Bitcoins.

The beginning of NFTs was “CryptoKitties,” developed by startup Dapper Labs in 2017. It is a game in which users breed cats with NFT attributes to create their own rare cats. At the end of 2017, the game’s digital cat was traded for \$110,000 and became a hot topic. Since 2020, Dapper Labs has been working with the NBA to offer the NBA Top Shot service, an NFT trading platform that allows users to trade short edited footage of famous player highlights. Dapper Labs has signed a license agreement with the NBA to create and sell a limited number of NFTs, to maintain their rarity.

Since NFTs can add the value of rarity and uniqueness to virtual assets, their influence has been rapidly increasing recently, especially in the fields of digital art, online sports, and game item trading. A 10-second video clip, typically made by digital artist Beeple, is available online for free at any time, but was sold on the

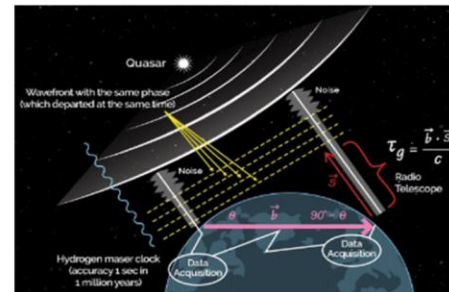
NFT exchange in February 2021 for \$6.6 million. In March 2021, Tesla CEO Elon Musk’s ex-wife, singer Grimes, sent 10 digital painting collections, titled “War nymph,” to which NFT technology was applied, to an online auction. They were sold for \$5.8 million in 20 minutes. That attracted a lot of attention.

20529 Choi Kyu Woo



## Black Hole Observation

About three years after the first observation of a black hole shadow (May 12, 2022, 10:00 pm in Korea), the world’s attention was once again focused on the headquarters of the European Southern Observatory (ESO), located in Germany. That’s because the Event Horizon Telescope (EHT) team has released another image of a black hole. For reference, after the official international briefing by the EHT team, the Korea Astronomical Research Institute also conducted a briefing by Korean researchers centering on the EHT press briefing.



The object observed by the EHT research team this time was the Sagittarius A\* (Sgr A\*) black hole, a

supermassive black hole at the center of the Milky Way, which is the closest black hole ever observed by mankind.

So what is the procedure for observing black holes? A black hole can be observed through its shadow. Light and radio waves passing through locations that are relatively unaffected by the black hole’s gravity are not sucked into the black hole, but are bent due to the black hole’s strong gravity. Those waves are seen wrapping around the black hole, revealing the hole’s outline. In addition, pyroelectric interference bands are required to observe black holes.

This procedure requires radio telescopes with various sizes and shapes. Radio interferometry technology uses two radio telescopes that are physically separated from each other to observe the “same” celestial body “simultaneously” and combine them into one data, realizing a resolution with an aperture corresponding to the distance of the radio telescopes from each other.

I hope more accurate pictures of black holes come out, and I want to find out more about what mathematical principles are needed to observe black holes.

10120 Lee Jun Hong



## What Is Artificial Intelligence?

The term 'the Fourth Industrial Revolution' first emerged at the World Economic Forum (WEF) in 2016 and is drawing attention as a new wave toward the information society. Beyond the stage of producing and sharing various information based on the Internet, it is time to move toward a hyper-connected, technology-based society using big data. One of the technologies that we are paying attention to in the fourth industrial revolution is AI (Artificial Intelligence). Artificial intelligence is a science and technology that implements human intellectual capabilities with computers, and can perform rational and logical judgments and actions, and even emotional and creative functions. The field of application is an all-around area of society, and there are no restrictions such as exist in finance, medical care, administration, law, agriculture, and art.

The Korea Research team <여론 속의 여론> conducted a survey of 1,000 adult men and women aged 18 or older on their thoughts on the development of artificial intelligence technology and the AI's performance of roles by job from 2021, March 19 to 22. Through the results of the survey, which is appropriate for the performance of roles by occupation among science and intelligence, the research team would like to examine what people think about the

development of artificial intelligence technology and what people think it is. When new technologies emerge, there will be social confusion, but if they are accompanied by a clear analysis of people's perceptions, expectations, and sense of crisis about technology, they will be able to achieve a better society.

### The Impact of Artificial Intelligence on Our Lives

Seven out of ten people are experiencing the development of artificial intelligence technology (67%). The response that they are experiencing the development of artificial intelligence technology in real life recorded 67% following the results of the Korea Research <여론 속의 여론> survey from January 14 to 16 last year. The development of AI technology does not end as a survey issue, but 7 out of 10 people feel it in real life. More than half of each age were experiencing the development. In particular, the lower the age, and the higher the average monthly household income, the higher the degree of feeling the development. On the contrary, respondents with high age and low monthly average household income seem to need assistance to respond appropriately to social changes due to their relatively low level of awareness of technological development.

10615 Park Sung Min



## The Cause and Solution of Building Collapse Accidents

Recently, the number of building collapses has increased. Most recently, Hwajeong I-Park, located in Gwangju, collapsed and became a public issue.

On January 11, 2022, the outer wall of HDC Hyundai Development's Hwajeong I-Park, which was under construction in Gwangju, collapsed from the 38th floor to the 23rd. Immediately after the accident, two people were rescued by rescue personnel, three escaped on their own, and one was slightly injured. But six workers were missing. The reason why this accident became an issue is because of numerous defects in the construction process.

In the early days after the accident, it was suggested that the tower crane on the roof of the construction site collapsed, causing the building to collapse. However, the crane manager said that the crane collapse theory was groundless because the work was stopped five hours before the accident due to wind speed. Since then, it has been revealed that the accident was caused by poor construction due to problems with the apartment design itself, problems that were the fault of site officials. For example, rebar that was exposed like fish bones was discovered at the collapse site. In addition, it was found that the thickness of the rooftop was doubled from what had been planned. Muddy



water accumulating in the lower part of the building was continuously found, and the steel support fixture had been removed without permission. Looking at this accident, I wonder how there are so many problems in one construction process. I think the problem of poor construction is not only the problem of the collapse in Gwangju. As the population flocked to the metropolitan area in recent years, demand for residences such as apartments increased, and the supply of apartments increased, which is why speed and efficiency became more important than the durability and stability of buildings. I think this construction process is problematic.

20929 Joo Sung Il



## A Post-Mortem Interview with David Ricardo

### 1. How Did You Become Interested In Economics?

I was influenced by my father, who was a securities dealer, and I showed talent and interest in the securities industry from an early age. After becoming independent of my father, I collected my fortune by teaching securities brokerage and open recruitment classes. Even when I was a teenager, I made a lot of money by investing in securities, and when I was in my 20s, I ran a big business and became very rich. In addition, from the standpoint of an industrial capitalist, I opposed the Corn Laws, legislation which benefitted only landowners. In 1799, at the age of 27, I happened to read Adam Smith's *The Wealth of Nations*, and later woke up to economics and started my research. Since then, I have been known as the founder of the classical school.

### 2. Why did you choose international trade among many economic sectors?

I didn't choose it on purpose, but after reading Adam Smith's *The Wealth of Nations*, I started studying that field of economics. So I created theories such as labor value theory/work value theory, comparative advantage theory, and difference zone theory.

### 3. What theory do scholars value the most?

I value the theory of comparative advantage the most because I was unfamiliar and semi-intuitive in my lifetime, so I couldn't accept it at all. However, about 20 years later, Britain abolished the Corn Laws, which, as I argued, had restricted food imports. The theory of comparative advantage here is that no matter how versatile a person or a country is, for the cost of opportunity, they end up pursuing specialization, which inevitably leads to trade and occupational

differentiation. The specialization, and dependency occurs because of this opportunity cost issue. I'll give you an example of this. Let's say that the UK puts together a bag of fabric in 100 hours of work and brews a bag of wine in 120 hours of work. But let's say Portugal puts together a bag of textiles in 90 hours of work and brews a bag of wine in 80 hours of work. Looking at it so far, Portugal has an absolute advantage, so both in textiles and wine they are self-sufficient. There seems to be no reason for them to interact with England. However, if you calculate the opportunity cost here, the situation is different. While Britain can weave 120/100=6/5 bags of textiles if they work 120 hours, Portugal can weave only 80/90=8/9 bags of textiles if they work 80 hours. So for Portugal, if you reject total "self-sufficiency," it would be much more economical to sell wine to England and buy textiles. This is the comparative advantage. Instead of just looking at one thing like this, it's interesting to look at events in many ways, and I like this theory very much.

### 4. Yes, thank you. You are considered to have had a lot of influence in this era. What do you think about that?

I am honored to hear that my theory has directly or at least greatly influenced many thinkers, from John Stewart Mill to Marx. My influence continues to this day, when modern economics has developed. I heard that scholars such as Piero Sraffa who advocated incomplete economic theories were also influenced by me. That's why we call them the "Neo-Ricardist School of Economics." Thank you very much.

20204 Kim Tae Hyun



## Job Explanation : Bodyguard

Being a bodyguard is a job that protects the target from danger. Avoid 'potential risk factors' by removing them, by preliminarily examining where the subject or target of security will move, by preventing the subject from going near the area and blocking contact with suspicious persons in advance, and by avoiding danger in case of emergency. The target is mortal and must be escorted. In general, "the person who attaches the bodyguard to him or herself = an important person," so professional bodyguards wear suits whenever possible. It is also because it can be polite and can make another person shrink in advance by giving a sense of intimidation, making it easier to control a situation.

In addition to private security companies and security offices, there are cases where the police or the military are in charge of security. In South Korea, security personnel are hired from within the police and entrusted with guarding key figures such as members of the National Assembly.

Most people think that bodyguards only need to fight well, but patience and insight are important for real bodyguards, and as you can see in the case of celebrities who hire bodyguards, there are quite a lot of cases where celebrities' anti-fans and even fans are hostile to bodyguards. In this situation, a bodyguard's reckless action without patience and insight may damage the reputation of the client. But, above all, it makes the client more endangered by making the crowd more excited by quite a lot.

In the case of private companies, there are many cases where choices are limited to finding martial arts masters, but not all bodyguards are the same. There are bodyguards who act immediately in a dangerous situation, and there are even strange cases where they are left staring blankly or run away. Of course, in this latter case, the bodyguard is expelled from the industry, and the company that hired him or her also loses its reputation. Financial damages, such as refunds or compensation for damages, inevitably follow from breach of contract.

If the person being guarded is a woman, female bodyguards are also hired. This has the advantage of them being able to enter areas where men cannot enter, such as a women's bathroom. However, overall, there are few female bodyguards, and there are many cases in which women want to hire more male bodyguards, so it is still a male-majority job. If a woman hires multiple bodyguards, the woman only enters sensitive areas such as a bathroom or changing room alone, or sticks closely to the female bodyguard, while a male bodyguard is in charge of other general bodyguards. Even if the client is a man, female bodyguards are sometimes assigned to protect female family members such as spouses, and other relatives, based on personal beliefs that women are more loyal, and to satisfy a client's sexual desires.

10926 Jo Sung Kook



## Symbol of France : the Eiffel Tower

**What's the first thing that comes to your mind when you think of France?**

→ The Eiffel Tower comes to mind first.

First, the history of the Eiffel Tower is that it was built for the purpose of displaying it at the 1889 Paris Expo, to show off the nation's power and to recover from the shame of France's defeat by Germany in the Franco-Prussian War. In particular, conscious of the Crystal Palace and St. Pancras Station, which were the latest buildings that Britain was proud of, the distance between the Machinery Pavilion's columns was increased to 115m and the Eiffel Tower, with a height of 300m, was constructed. In fact, the architectural significance of the Machinery Pavilion can be evaluated as greater, but the Eiffel Tower's visual impact

felt by the public was superior.

It's hard to imagine it when we look at today's skyscrapers, but the Washington Monument, a structure of about 169m, and the Ulm Cathedral, a 161m building, were the tallest towers at that time, and the 300m Eiffel Tower was a shocking sight. Never in the history of mankind had the height of a man-made structure so 'suddenly' risen. In particular, in an era when people were busy imitating classic buildings even with iron, the majesty of the Eiffel Tower proudly revealing its steel frame seemed to announce an era of new architecture, which made structural engineers active in the civil engineering field more likely than general architects. It is progress that was possible because new materials of the industrial era were used more quickly.

The structure of the Eiffel Tower consists of a total of 3 floors, and the elevators to the 1st and 2nd floors are old hydraulic ones. Therefore, if you look to the side while riding the elevator, you will see a huge barrel moving. Going to the third floor is modern. Unusually, the elevator is also made up of two floors.

There is a reason why the tower is made of only steel frames. Building it that way makes it safe to let wind pass through a structure as high as 300m, because the effect of wind pressure is considerable at that height. At the time, knowledge of this aspect was lacking, but Gustav Eiffel, who had a lot of experience in civil engineering, knew it empirically. Nonetheless, the tower shakes on windy days, so access to the third floor is regulated for safety reasons. In addition, like most structures, it relaxes and contracts imperceptibly depending on the season.

In fact, the Eiffel Tower itself is really a place to see and a must for tourist destinations. The city of Paris is small, but it is overflowing with tourist attractions. The 1937 Paris Expo was held in Mars Square in front of the Eiffel Tower. It was a place where a battle of pride between Nazi Germany and the Soviet Union took place, to the extent that it was said the War had already been scheduled since 1937.

One thing to be aware of is that there are pickpockets in the tower. Europe has long been known as a place with a lot of pickpockets. But you have to pay an entrance fee to enter the Eiffel Tower, and pickpockets all pay and line up to enter. Maybe that's why, when you look at places like elevators, you can see pickpockets putting their hands in other people's pockets while repeating the phrase, 'Beware of pickpockets.' One tour guide even caught a pickpocket with his hand in the pocket of one of the group. Under and around the Eiffel Tower, peddlers selling glow-in-the-dark toys and Eiffel Tower replicas of all sizes hang around, jingling models and shouting "One Euro!"

10926 Jo Sung Kook



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