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The Argus

Since 1954

Do You REALLY Know What Autism Spectrum Disorder (ASD) Is?

Reconsider the Controversies and Prejudices about Those with Autism Spectrum.

Is "Extraordinary Attorney Woo" Glamorizing ASD?

Parents Not to Be Blamed: The Neurological Reasons of ASD

The Argus

ESTABLISHED 1954

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Editorial

For a More Advanced Era

The Korean Drama "Extraordinary Attorney Woo," about Woo Young-woo, an attorney who has autism spectrum disorders (ASD), had an amazing viewership rating of 17.4 percent and popularity of public. In accordance with this big hit, many controversies around Drama "Extraordinary Attorney Woo" arised. One of the controversies is about Youtubers who posted the video imitating Woo Young-woo's parlance and behavior to have fun. On the one hand, people criticized them for demeaning people with ASD, although the Youtubers responded that it was just a parody. On the other hand, although the video received many comments saying that their behavior was not appropriate, at the same time, people who have the opposite opinion leave comments saying "Why do you guys make life so hard?" As a result, public opinion has been divided.

In an era where diversity is appreciated and embraced, there is more room for a social minority to raise their voice. People who empathize with the socially disadvantaged began to point out problems that were deeply rooted in our society. However, some are denigrating people who raise social minority issues as obsessed with trivial things. Of course, some criticism about society may be nonsense, but only saying things such as "Why do you make life so hard?" without logical argument and evidence is not appropriate. These words prevent in-depth social discourse about the raised errors from taking place.

As our society is not completely mature yet, it is important to have a discussion, come to a solution based on the discussion, and improve the society. For this reason, we should not cut off other person's speech without any logical argument and evidence. It is natural to feel annoyed, be tired of the process of correcting faults, and want to make quick conclusions even though the process is not complete. However, if people only try to speed things up without a willingness to look at problems logically, the process of improvement disappears; in that case, there would be no more advancement but only regression. Society may not be mature even after lots of discussions and developments; nevertheless, the reason why we have to keep pointing out, discussing and fixing such problems is because yesterday's change will become tomorrow's norm. How about making a discussion about the raised problems within our society and pursuing social advancement by correcting them? If we do not, it will not be easy to achieve a more advanced society with more diversity. As the first step for a more advanced era, The Argus wants to provide a ground for discussions through this October issue.

By Yang Yu-min
Editor-in-Chief

양유민

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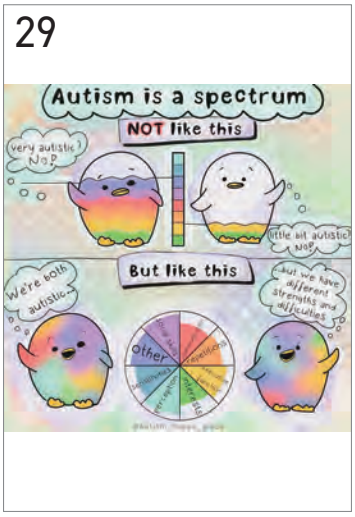

CONTENTS

Cover Story

>> "Woo to the Young to the Woo!" This line has been used in one of the trending K-dramas "Extraordinary Attorney Woo," which featured in a lawyer with autism spectrum disorder (ASD) and brought up the issue of ASD in a social context. Thanks to the show, now more people have come to be aware of what ASD is. However, there are some people criticizing that the drama is erroneously glamorizing the reality of ASD. It is questionable what is the right way of viewing this issue, especially when surrounded by various voices and controversies. To obtain a balanced perspective, our society needs to explore this social issue with fathomable facts. The Argus argues that there are three outstanding misunderstandings and prejudices about ASD, hoping to raise awareness and for making better world for living together with people with ASD.

HUFS, Suwon City Yeongtong Library Hold Lecture: "Eurasia and Korea"

Suwon City Yeongtong Library and the center "Tolerance" will hold the lecture "Eurasia and Korea" as a part 3 of the series "Cultures Around the World." Tolerance is a regional humanities center under the Center for International Area Studies Research of HUFS. This lecture examines how residents of the two regions have met, exchanged and cooperated in the correlation and history of the Eurasian region and Korea. It is an eight-week long socially distanced program from October 4 to November 22. Yeongtong Library is taking 100 applicants until it ends.

The attendants can understand the history of Korea, China, Wandong, Siberia, Mongolia, Central Asia, Türkiye, and Persia by looking for traces left by ancestors there. HK+ National Strategies Research Project Agency Center for International Area Studies of HUFS and Suwon City Yeongtong Library agreed to cooperate with humanities programs about culture around the world on March 2, 2022. The series "Cultures Around the World" is the first program since the partnership began. Part 1 was "Understanding Eastern and Balkan European Culture," and part 2 was "Cities of the World, Embrace the world." Yeongtong Library said in Korea Sisa Ilbo media, "Through this course, people will be able to understand Korea's history created in cooperation and conflict with each region of Eurasia."

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▲ The application for the third series of "Cultures Around the World" is now open. Any citizens of Suwon city are able to apply for the program through Yeongtong Library website or application.

By Lee Jue-hyun
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HUFS, Korea Student Aid Foundation Signed MOU for Global Work Scholarship

HUFS signed a Memorandum of Understanding (MOU) with the Korea Student Aid Foundation (KOSAF) to activate a global work scholarship program on September 14, 2022. Both institutions promised to expand opportunities for students seeking to enter the international field by discovering high-quality global labor institutions.

This agreement will be the motivation to make efforts to expedite and efficiently conduct business through cooperation from various angles such as through administration, resources, and public relations. Park Jeong-Woon, President of HUFS, said in the University News Network media, "It is certain that the specialized educational infrastructure of HUFS, through which alumni are entering various global companies and institutions, will contribute to the development of international competencies of participating students," showing a positive view of the partnership. Jeong Dae-hwa, Board President of KOSAF, also said that KOSAF will work hard to encourage active participation of students by discovering excellent institutions in the international field and improving the quality of national work scholarship projects. Baek Ji-young (Department of Japanese Language, Literature and Culture '21) said, "I heard that there are many students who want to go abroad due to the nature of HUFS. I think it will be a good opportunity to provide practical assistance to such students." This MOU will lead HUFS students to grow as differentiated global talents through meaningful activities.

©STEG

▲ HUFS and Korea Student Aid Foundation cooperate for the global work scholarship to provide students with various experiences.

By Lee Jue-hyun
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HUFS Signs Global Expansion MOU with Born2Global Center

HUFS and Born2Global Center signed a Memorandum of Understanding (MOU) for global expansion. This agreement ceremony was held on September 13, 2022, at the Seoul Campus Main Building in the Conference Room. The two institutions agreed to cooperate in promoting start-ups programs for global talents.

This MOU is a part of Seoul Campus Town, a project to support university and regional cooperation, and also discovers domestic start-ups that advance overseas. HUFS President Park Jeong-Woon said from HUFSNews, "Since we signed the MOU, HUFS will provide about 170,000 alumni networks around the world with Born2Global Center, and Born2Global Center will support professionality by fostering start-ups. Thus, this agreement will help talented global citizens to work as members of global unicorn companies." Chang Han-na (Division of African Studies '19) said, "I heard that Born2Global Center has helped domestic start-ups to settle, it is necessary for them to expand in the global market successfully. I would like to work abroad someday, so I really look forward to this agreement." The advancement of programs such as this MOU will be a good opportunity for the people who are interested in global expansion.

©HUFSNews

▲ Kim Jong-kap (L), Director of Born2Global Center, and President Park Jeong-Woon (R) drew up a Memorandum of Understanding.

By Lee Ju-won
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HUFS Student Counseling Center Holds Peer Counseling Program

Students can apply for peer counseling programs held by the Student Counseling Center of HUFS Seoul Campus during the entire fall semester. Peer counselors are HUFS students who have completed 10 hours of counseling training. The program will run through a one-to-one relationship which is the best match for counselor and counselee.

©HUFS Student Counseling Center

▲ Student Counseling Center of HUFS Seoul Campus runs a program for students who want to find a solution to their problems.

The students who want to participate should submit a Google application form by accessing the link posted on the Student Counseling Center or HUFS homepage. It is necessary to write down the reasons for requesting counseling and what things to expect from peer counseling. This program aims to resolve concerns about personal experiences, university life, career, and family. And consultation content is strictly confidential.

Sung Hee-jin, (Department of Dutch '19), said, "Sometimes, it is difficult to talk about my worries to close friends and family, even adults. However, both the peer counselors and counselee share a similar culture and lifestyle, so it is easier to empathize and consult more deeply. Thus, I would like to participate in this program when I have troubles. Also, if any friends around me are having problems, I will recommend this counseling." The Argus hopes that every students who has concerns will resolve their problem as soon as possible, through the peer counseling programs.

By Lee Ju-won
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"Squid Game" Sets New Record by Winning Emmy Award

By Yang Yu-min
Editor-in-Chief

Netflix's Original Series of the Korean drama "Squid Game" became the first non-English drama to win an Emmy Award, the most prestigious in the American broadcasting industry. At the 74th Emmy Awards held on September 12, 2022, at the Microsoft Theater in Los Angeles, U.S., Director Hwang Dong-hyuk won Outstanding Directing and Actor Lee Jung-jae won Outstanding Lead Actor in a Drama Category, rewriting the history of Korean drama. At the Primetime Creative Arts Emmy Awards, held four days earlier, Actress Lee You-mi won Outstanding Guest Actress. As a result, "Squid Game" won a total of six awards, including Outstanding Special Visual Effects in a Single Episode, Outstanding Stunt Performance, and Production Design for a Narrative Contemporary Program Category. It is the first time in the history of the Emmy Awards, which began in 1949, that a non-English drama has won an Emmy Award.

Director Hwang Dong-hyuk said, "I truly hope 'Squid Game' won't be the last non-English series to be here at the Emmys, and I also hope this won't be my last Emmy either" at the awards ceremony in English. Director Hwang also said at a press conference that he aims for Outstanding Drama Series with "Squid Game 2." As it is in production, attention around the world is focused on the future of "Squid Game."

©KBS News

▲ The producers of "Squid Game" are holding the Emmy Award trophy at the award commemorative meeting held in Sogong-dong, Seoul on September 16, 2022.

Queen Elizabeth II Passed Away

Queen Elizabeth II, the spiritual leader and the head of the United Kingdom, passed away on September 8, 2022, at the age of 96. Buckingham Palace announced that the Queen passed away peacefully at Balmoral Castle in Scotland this afternoon on September 8, 2022. Queen Elizabeth II held her throne for over 70 years after she ascended to the throne in 1952, setting the record for Britain's longest reigning monarch and the second longest reigning monarch in world history.

Queen Elizabeth II was born on April 21, 1926, and ascended to the throne on February 6, 1952, at the age of 25. The sudden death of her father, King George VI, forced her to bear the weight of her crown sooner than expected. Her reign lasted 70 years and 214 days, far beyond her great-grandmother Queen Victoria, who reigned 63 years and 216 days, making her the longest monarch in British history. As King Louis XIV of France reigned 72 years and 110 days, Queen Elizabeth II is the second longest monarch worldwide.

©Yonhap News

▲ Buckingham Palace has unveiled a commemorative plaque marking the final resting place of the late Queen Elizabeth II.

The state funeral of Queen Elizabeth II was held at Westminster Abbey in London on September 19, 2022. With about 500 distinguished guests from abroad representing about 200 countries and regions in attendance, the British people sent their last greetings to their country's longest-reigning Queen.

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"Seoul Weather Station:" Non-human Perspective of the Climate Crisis

By Lee Ju-won
Staff Reporter of Culture Section

Climate change has become an existential threat to the world. In September 2022, 1,562 South Korean traditional markets and about 4,000 vehicles were flooded, and cultural properties were damaged or destroyed because of the super typhoon "Hinnamnor." Hinnamnor formed at a latitude that was 10 degrees higher than for typhoons "Rusa" and "Maemi" that occurred 20 years ago. Thus, South Korean meteorologists consider it an effect of climate change. Also, they predict that upcoming typhoons will grow strong as the sea temperature rises and creates more evaporation. Humanity has reached the point where they can no longer avoid the climate crisis.

As the climate crisis gets more extensive, cultural artists are highlighting the problems of the climate crisis as well through creative outlets. The "Seoul Weather Station" exhibition sheds light on the climate crisis around the world, and it is differentiated in that it views the climate crisis from a non-human perspective and subverts human-centered values unlike other exhibitions. "Seoul Weather Station" is holding the first exhibition of World Weather Network (WWN) where 28 countries, including France, Canada, and New Zealand, become climatological stations and explore research artistically on the climate crisis. The Argus visited the "Seoul Weather Station" exhibition on the present climate crisis and examined the social role played by art and provides an opportunity for readers to reflect on their attitudes toward the environment.

• *"Seoul Weather Station"* •

Period 2022.08.30 to 2022.11.20

Location Art Sonje Center (87 Yulgok-ro 3-gil Jongno-gu Seoul 03062 Korea). Come out of Exit No. 1 at An-guk Station of Line 3 and walk towards Jung Dok Public Library. Art Sonje Center will be on the right-hand side before the library.

Opening Hours Tuesday, Thursday to Sunday: 12:00-19:00, Wednesday: 12:00-21:00, Closed Monday and public holidays.

Admission fee Adults (19-64): 10,000 won (US$7.19), Youth (9-18): 7,000 won (US$5.04), 8 and under, over 65: Free, Visitors with disabilities: Free

Moon Kyung-won & Jeon Joon-ho: Artists of "Seoul Weather Station"

Let's go inside the Art Sonje Center. If visitors enter the main gate of the Art Sonje Center, visitors can see the ticket desk right away. After checking tickets, visitors can also take a guide book placed on the desk. This guidebook consists of detailed explanations about works and introduces the artists. It says that Moon Kyung-won and Jeon Joon-ho have been exploring the role of art in a contemporary society alongside crises such as political and economic contradictions, historical conflicts, and especially climate change. Also, they are best known for interdisciplinary and participatory works that intend to reflect on the lives of people by themselves and suggest possibilities for the future by collaborating with experts from various fields, including design, science, philosophy, economics, and politics.

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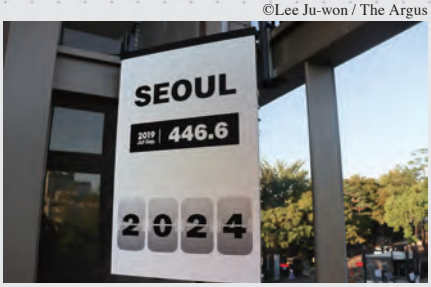


▲ The "Carbon Calendar" refers to carbon emissions of 2019, and predicts that Seoul is in 2024, not 2022.

©Art Sonje Center

▲ Moon Kyung-won and Jeon Joon-ho are facilitating the Spot robot's motion with technicians in Jongno areas.

©Lee Ju-won / The Argus

▲ A Spot robot returns to the corner of the exhibition area and sits after the videos end.

"Present Immersive Installation Artwork and Call for a Change in Visitor's Thinking about Climate Issues"

Spot robot

Pyeongchang, Gangwon Province, South Korea, is considered a representative low-carbon city. According to the degree of carbon pollution measured in 2022 between Seoul and Pyeongchang, Pyeongchang meets the criteria of 2022, but Seoul, a densely populated city of South Korea, meets the requirements for 2047. Even though these cities exist in the same era, one region has higher carbon levels. Heading to Space 2 of Art Sonje Center, a "Carbon Calendar," showing carbon levels measured in Gwanghwamun and Jongno areas in South Korea, is hanging in the hallway. The "Carbon Calendar" compares the carbon emissions of Seoul measured in the past with those measured in the present. And it also shows which year diverse countries are measuring at now. Then how did Moon and Jeon capture this carbon data?

Moon and Jeon invented a private smart carbon measuring device for the first time in South Korea to create a "Carbon Calendar," which was mounted on a Spot robot to capture carbon data. The Spot robot, made by the walking robot company Boston Dynamics, looks like a dog and travels around the exhibition area with its four feet. The reason why the Spot robot was invented is that Moon and Jeon want to share the current carbon levels with society now that the world is suffering from the climate crisis. On September 6, 2022, at the Artist Talk, they said, "We thought that if carbon concentration were easily accessible in everyday life, just like checking fine dust when going out or doing laundry, people would become alarmed about carbon emissions," giving visitors a shock as they combined the seriousness of carbon emissions with art. In addition, they hope that individuals can measure carbon levels in real life, so they are trying to make carbon measuring devices for home use using inexpensive gadgets.

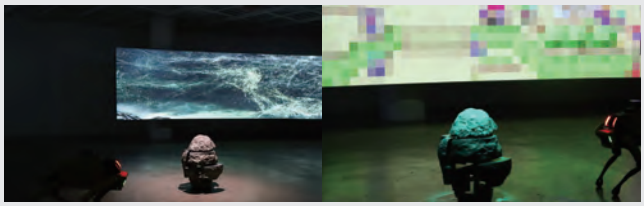
To Build a Fire

Moving to Space 1 on the second floor, the Spot robot leads visitors to "To Build a Fire." This Spot robot can be a guide in that it not only measures carbon levels but also helps visitors focus on the exhibition. As soon as entering the space, a huge screen overwhelms visitors. The screen is used to show two videos that illustrate the rapidly changing appearance of the planet from the perspective of a tiny pebble over the millennia.

The first narrative represents the Earth's changing face with the lapse of time since humanity constructed civilization. There are various factors for expressing complex climate changes such as games, movies, dramas, and digital arts. After the first video, through the window with red plastic film. window located on the side following the Spot robot. When the blinds are raised and red light is shone outside through the window with red plastic film, visitors feel a creepy sensation because the red-colored sight is used as a medium representing the unrealistic future ruined by the climate crisis. While the first narrative is played, a novel is delivered to the visitors through the GPT-3 voice generator, which is artificial intelligence (AI). The novel was written by AI, and Moon and Jeon only input keywords such as "industrial revolution" and "climate change" into GPT-3. The reason why they did not write the novel by themselves is that they had the intention of minimizing human intervention.

When the blinds are pulled down, the Spot robot focuses the visitors on the screen where the second narrative is on. The second narrative is based on a story about the change of the Earth from the pebble perspective. The narrative begins with a scene where a man is left alone on a small boat in a boundless ocean. He experienced extreme cold on the sea with no one and was driven on the vast ocean only with a plant that was well-rooted in a flowerpot. This scene of a struggling human provides visitors with opportunities to reflect on themselves and remind them of the climate problems that humanity has caused. This second narrative develops from the perspective of a pebble, not a human; but why a pebble? This is because, during the time permanently and continually being weathered, the corruption of humans and the Earth from a third-party point of view can be seen objectively as how the beautiful Earth went out of existence. Both narratives blur the boundaries of reality and unreality, and actuality and virtuality, and ask visitors to predict the future caused by the climate crisis, ensuring that visitors must have an objective perspective toward them. Looking at the work "To Build a Fire," visitors would be able to think about whether the Earth is shouting for help in the ocean.

▲ The Spot robot guides visitors to move to the red blinds.



▲ The narratives of videos are intertwined with realistic and unrealistic factors, collaborating with game company.

▲ The exhibition area is colored with red light.

"Archiving the Past, Discussing the Present Together with the Future"

Mungyeong Factory of SsangYong Motor

Artists and carbon experts interested in the climate crisis were a part of this exhibition. Ryu Jun-yeol, an actor, photographer, and Greenpeace* ambassador, photographed "SsangYong Motor," the first modern cement factory and great contribution to economic development in South Korea. SsangYong Motor was built in 1957 after the Korean War.* Though it was responsible for half of the domestic cement industries, it was closed in 2018 due to a decrease in cement demands, looking isolated and desolate. Thus, what are the links between the cement company and the climate crisis? According to the Ministry of Environment, all eight cement companies in South Korea have been on the list of the top 20 companies for environmental pollutants emissions. However, carbon emissions of cement companies are serious not only in South Korea but also around the world. The Associated Press (AP), a non-profit news agency headquartered in New York, said that as of 2021, carbon dioxide emissions from cement production amount to about 2.6 billion tons and account for seven percent of global carbon emissions.

▲ SsangYong Motor will be reborn as an industrial and cultural district in Mungyeong, North Gyeongsang Province, through urban regeneration projects.

Since the 1960s, the increases in population have contributed to economic growth, so the carbon emissions cement have been on the very front lines. However, unlike the splendid past, the current SsangYong Motor is depicted in gray throughout the photographs. The cement factory became rusty here and there, and the devastating buildings are so uninspired, lending a feeling

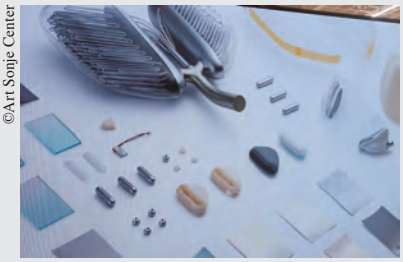
*Greenpeace: Greenpeace is a non-government organization (NGO) founded in 1971. It is conducting a campaign such as helping to end whaling, stop nuclear testing in a peaceful way.
*The Korean War: The Korean War in which North Korea invaded South Korea along the 38th Military Demarcation Line on June 25, 1950.

of emptiness and unpleasantness. It is guessed that this feeling will be raised if the long-lived pebble on the Earth were to see the current climate crisis. For a sustainable environment to be possible with the presence of cement factories, it is important to promote eco-friendly development even though SsangYong Motor was closed. Recently, a lot of companies are starting waste plastics businesses to make raw materials necessary or to use them as fuel to operate factories. This proves that the cement industry is struggling to be eco-friendly, although today's cement is not as durable as earlier cement. In South Korea, the cement industry emits the third-largest amount of greenhouse gas, but if eco-friendly development continues, South Korea looks forward to seeing a blue sky, not a gray one.

"Conceived Design Solutions that Can Be Used Even in Extreme Climate Conditions and in a Post-apocalyptic World"

Drawing: Reconstruction of a Future Urban Society

In the 19th century, European miners put canaries in a cage when they worked inside a coal mine. This is because canaries have a sensitive respiratory system to detect toxic gasses such as methane and carbon monoxide, so they help miners evacuate as soon as the canaries show abnormal behavior. That is, the canary is a danger detector. Moon and Jeon came up with "Super Lung & Super Mask" based on the bird respiratory system in collaboration with industrial design studio BKID and drew cartoons of human beings using them. Even if people cannot breathe independently due to lack of oxygen, wearing this super lung and super mask makes it less difficult for people to breathe. Then how do humans survive if there is no water in the world? "I-City/We-City" depicts a waterless future where people are floating on water because the land has disappeared due to rising sea levels. They show that every part of society including factories and forests will be divided into transparent floating capsules like droplets. These works are just drawn with pencil, but they suggest an alternative upcoming at a time when there is a shortage of oxygen and water due to the climate crisis. Artist Moon said, "Through this exhibition, I hope that visitors will look at their present reality so that the works become a mirror rather than the message themselves." The climate crisis is directly related to human survival, so it is always important to step forward to protect the environment.



©Art Sonje Center

▲ The super lung drawn in the cartoon version is designed by 3D visualization techniques.

©Lee Ju-won / The Argus

▲ Super Lung and Super Mask are made through a collaboration with industrial design studio BKID.

"Once-buried Perceptions and Attitudes Transported into Sphere of Discourse"

Mobile Agora: Talk Program

In Space 2 on the third floor, "Mobile Agora: Talk Program" is held. This program serves as a platform where experts from various fields are expressing their opinions about the social role of arts, and sharing experiences and research on the environment. It is held in the middle of the hall where colorful chairs are spread out. Moon and Jeon picked up the used chairs from the Eulji-ro furniture street, a leading commercial district, and reconstructed a sphere of discourse with those chairs. Experts and visitors will be at each weather station and attempt to find new alternatives to solving climate issues.

On September 6, 2022, "Mobile Agora: Artist Talk," was held with Moon and Jeon, who planned the exhibition, and The Argus attended the event. Visitors ranged from teenagers to those in their 50s and sat in the sphere of discourse. Kim Sun-jung, an artistic director of the Art Sonje Center, was the host, and the artist talk began when she introduced Moon and Jeon. At this event, they

shared their experiences with visitors and talked about how they overcame complications while producing the work "To Build a Fire." To make the Spot robot remember the space, they made an effort to do endless modifications and mapping through coding with programmers, they said. A participant asked Jeon, "If 'Seoul Weather Station' aims to interpret the climate crisis from a non-human perspective, why did you use a product of human AI?" In response, Jeon said, "Of course, AI was made with human experience and knowledge, but I think it is meaningful in that Moon and I tried to minimize human intervention to AI, as we input only keywords in the AI to write novels." In addition, they approached Space 1 where the "To Build a Fire" was displayed as an extension of the work. Moon said, "As virtual reality (VR) games require a device, we designed Space 1 as the inside of the device," and as she intended, space seems like an unknown world surpassing time and space. Another participant Park Yu-chan, 18-year-old, said, "This is the first time I have visited an exhibition about the climate crisis. I had never considered the climate crisis serious until this exhibition. I want to work in the field of arts, and I would like to hold an exhibition that combines the climate crisis, environment, and art in the future." Also, he added, "Looking at works interpreted as art rather than having learned from internet lectures or news, I firmly realize that I should be concerned about the environment."

The remaining three programs, "Our Near Future: Contemplating Coexistence with Robots," "When the Earth Screams," and "World Weather Network–Weather Reports from Artists and Writers across the World" will be held in October and November, including the program's participants Hyundai Motor Group Robotics LAB and KAIST professor Jeong Jae-sung, Ewha Institute for the Humanities professor Lee Chan-woong, science fiction writer Yi Seo-young, and Associate Director of Artangel James Lingwood. Why not participate in Mobile Agora and become an environmental activist? Mobile Agora welcomes readers, also known as future environmentalists.

©Yang Yu-min / The Argus

▲ The artist talk is part of 2022 Korea Art Week with the Ministry of Culture, Sports and Tourism and Korea Arts Management Service.

• Conclusion •

The Argus asked artist Jeon Joon-ho what youth living in turbulent times could do. Jeon said, "The younger generation is experiencing competition and the cold war system, facing a lot of natural disasters. I am sure it will be difficult to find their own way in this environment. To persevere, it is necessary for them to consider how to develop their lives, separate from the values imposed by society." As Jeon said that young people should not be stuck on society's values, Moon and Jeon impart information about the climate crisis to visitors from a non-human perspective as well as unique artistic alternatives for the climate crisis.

Humanity has destroyed nature, but the more humanity experiences bizarre typhoons, heavy rains, and numerous climate changes, the more humanity realizes that we cannot take control of nature. When the Earth disappears, humanity can no longer exist. Through this exhibition, readers might start to realize the seriousness of the climate crisis and start to plan for the future. The Argus wants readers to realize how to respond to the climate crisis through a shift in thinking.

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To the Diversity and Coexistence:
Discharging the Prejudice against
Autism Spectrum Disorder

By Cho Eun
Associate Editor of Culture Section

"Kayak, deed, rotator, noon, racecar, Woo Young-woo." This is the famous line of Woo Young-woo, the protagonist of the recent popular drama "Extraordinary Attorney Woo." This line comes up every time she introduces herself. The line portrays those with autism spectrum disorder (ASD) as showing perseverative behavior. It made people a bit uncomfortable at first, but later people became accustomed to it and now became the punchline of the drama. As many dramas are featuring ASD nowadays, the public's perception and awareness of ASD are growing, which triggers more than a few controversies about ASD. Does society understand ASD appropriately with all the different voices and the controversies? One needs to pursue an in-depth understanding of ASD and of the lives of those who have it from an unbiased perspective. The Argus hopes to appreciate ASD by identifying inappropriate misconceptions that diverse works, media, and society have created.

Before Reading

Autism spectrum disorder (ASD): ASD includes autistic disorder and other syndromes that have autistic features. It also includes Asperger syndrome, which causes difficulties in communication, social interactions, and repeated actions, and savant syndrome, where a person is a genius with a brain disorder at the same time. Many of those who have ASD show struggles with social communication including language usage and reading emotions, and also show perseverative behaviors and extremely narrow interests. However, these characteristics vary by individual.

©Freepick

▶ There are diverse characteristics of ASD.

Problem

Is the Media Glamorizing Autism Spectrum Disorder?

"Extraordinary Attorney Woo," which saw a spike in viewer ratings of the broadcasting company ENA from 0.9 percent to 17.4 percent, is embroiled in controversy, along with its popularity. The most noted dispute is that Woo Young-woo, the protagonist of the show, glamorizes ASD. They argue that the ASD character, an attorney of a big law firm who has a talented memory with a cute face, is a far cry from reality, claiming that this kind of ASD represents only 1 percent of ASD cases. They worry that ASD characters like Woo can cause the public to misunderstand that all with ASD are geniuses. Bae Seong-eun, the parent of an ASD child, said that her younger son asked what kind of ability his ASD brother had in an interview with Yonhap News. She expressed bitter feelings, fearing that people are getting the wrong impression about ASD. Many parents of ASD children apart from Bae think "Extraordinary Attorney Woo" is distorting ASD and intensifying inappropriate prejudices.

©Rotten Tomatoes

▲ The drama "Extraordinary Attorney Woo" brought many controversies with its fame.

However, the claim that the drama "Extraordinary Attorney Woo" glamorizes ASD is rather a bias made by misunderstanding ASD. As the word *spectrum* shows, ASD includes diverse forms and extents. Thus, the term *representative* cannot specify any features, and the meaning of "spectrum" breaks when one gives representation to a typical characteristic. Kim Byung-keon, a professor in the Department of Early Childhood Special Education at Korea Nazarene University, who advised on the drama "Extraordinary Attorney Woo," said, "Thinking of Woo as a representative of all with ASD and saying the drama is a distortion is a misunderstanding of ASD. It is prejudicial to assume everyone with ASD is the same." He added, "Those with ASD like Woo can surely exist," mentioning that Elon Musk, a famous entrepreneur, Albert Einstein, a scientist, and Temple Grandin, a zoologist, also have autism spectrum disorder. Society is forcing Woo, who is just one of the many with ASD, to be a representative without fully knowing about ASD.


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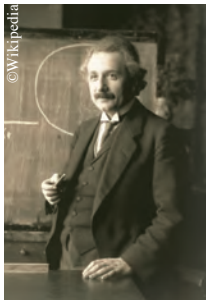
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▲ Elon Musk (L), Albert Einstein (M), and Temple Grandin (R). Even though they all have ASD, they are recognized as specialists in their respective fields.

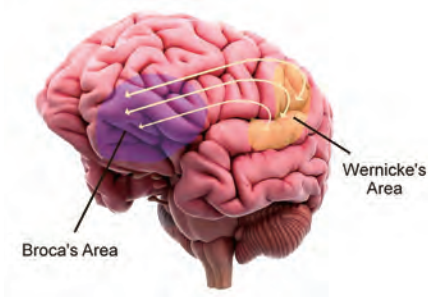
Is ASD the Fault of Parents?

"Malaton" is a Korean movie about a son with ASD and his mother walking together toward their dream. Likewise, the movie "House of Cards" depicted the love between a daughter

with ASD and her mother. These works about ASD describe the love of family in many cases. The well-known story plot, suggesting that to pursue love in difficult circumstances is a solution, is based on an old prejudice that ASD appears because there is a lack of love. The book "In a Different Key: The Story of Autism" mentions that these subjects are entrenched by the message rooted throughout society that autism is caused by a lack of love. People think the cause of ASD, which is still unknown for the most part, is cold parents. They believe the cold reaction of a mom toward an infant or child affects a child's psychology, resulting in intellectual and mental retardation. Based on these perceptions, there also is the phrase "cold parents," referring to indifferent parents of ASD children. Views that blame the parents of children with ASD, especially moms, have been widespread without any factual evidence.

▲ Both films are about ASD children and their parents overcoming struggles through love.

The wrong understanding, which sees the cause of ASD as the parents, has considerably been diminished in medical terms via recent progress in brain science, which finds the cause in neurological factors. Shin Kyung-soon, a lecturer in the Department of Linguistics and Cognitive Science at HUFS, said, "The superior temporal gyrus of both the left and the right hemispheres of the brain are known to respond sensitively to diverse kinds of movements, and many studies have found that ASD shows a decline in activation in that area compared to people who are neurotypical," explaining the neurological reason why people with ASD suffer from combining diverse stimulations in the course of recognizing external stimulus. She also mentioned, "The parts of the brain are interconnected to near and far parts, but in the case of ASD, they show somewhat complicated and discorded results in the problem of brain connectivity." Lee Yu-bu, a research professor of the Center for Neuroscience Imaging Research at the Institute for Basic Science at Sungkyunkwan University, said that studies have found through brain network analysis that ASD children and teenagers show a lower degree of centrality* in Broca's area* compared to their neurotypical cohort and that ASD adults show a lower degree of centrality in Wernicke's area* compared to their neurotypical cohort. The cause of ASD is turning out to be neurological, not psychological, as supported by various studies, but public understanding is progressing slowly. The protagonist of the drama "Extraordinary Attorney Woo," who is abandoned by her mother in the show, may be regarded by the viewers as another case where ASD occurs by the lack of parental love.



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▲ Broca's and Wernicke's areas are deeply related to language function.

*Degree centrality: The measure of connection from one specific part to another part. The more connection it has, the more centrality it shows and interacts with other parts.
*Broca's area: The part of the brain that is deeply related to language utterance and understanding, located in the left brain's inferior frontal gyrus.
*Wernicke's area: The part of the brain that is deeply related to auditory, phoneme, and semantic processes, located in the left superior temporal gyrus.

Is ASD Wrong?

©ENA
▲ Woo from the drama tries to choose an appropriate facial expression in the given context.

In the drama "Extraordinary Attorney Woo," Woo tries the suit her father bought for her first day of work, finding the picture of "joy" among many pictures of emotions with the title "Human Emotion" and imitating the joyful smile just like the face on the picture. Like the scene of the drama, those with ASD apprehend others' emotions by memorizing meanings associated with the features of the face, like "the smiling face shows raised mouth corner and descended eyes

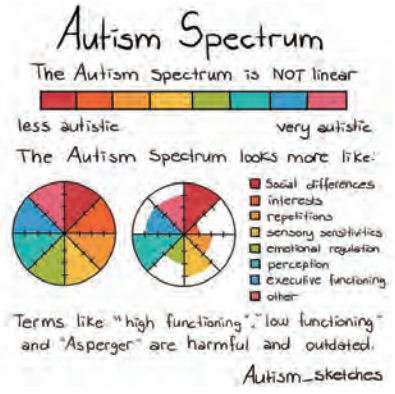
slant." This is because most with ASD have difficulty reading others' emotions from their faces. The major treatments, including diverse training such as sensory integration therapy used to decrease the response to a stimulus and to avoid using echolalia, are usually adaptations used with neurotypicals. Jang Ji-yong from Estas, the adult autistic self-advocacy group, said in an interview with the Hankyoreh that they learn emotions, jokes, and the way to look at one's eyes while conversing, with their head, rather than their heart, and carry out these acts, which is called "masking." Not all but many with ASD work hard to hide their true selves from the majority.

The features of ASD, which include doing echolalia, not being good at reading emotions, and not understanding jokes, are not bad traits. Thus, why should they seek to change these characteristics? It is not right to expect those with ASD to act like neurotypicals. This can tacitly cause a division between people considered "normal" and those with ASD. Mentioning dichotomous thinking, which separates normal and abnormal, Kim said, "Everyone can have unusual aspects in their lives, and these should be thought of as personal features. Society is not a place where a simple dichotomous view of normal and abnormal is appropriate, ignoring a whole part of individual characteristics." He also said it can be reasonable for the sake of economy, but not ethically right to bring such a dichotomous attitude to the disorder. Because it is cheaper to educate people separately on ASD and non-ASD, society has disregarded their features.

Cause

Changing Definition of ASD, Unchanging Perception

The controversy over ASD incurred by shows that cover ASD including "Extraordinary Attorney Woo" is that people do not understand the idea of a "spectrum." According to Kim, ASD is often explained with the metaphor of a rainbow. There is no color that can represent a rainbow. A rainbow can be called a rainbow when many colors are gathered, and each color is hard to be called a rainbow by itself. Thus, ASD shows diverse aspects depending on people, so Woo or anyone else with ASD cannot represent every person with ASD. Although language utterance is a common feature of many with ASD, there are some who cannot use spontaneous language samples* and some who do not have problems with language function and are very talkative.



▲ ASD includes a wide range and diverse features, just like a rainbow.

The concept of the spectrum may be hard to understand because the idea was not introduced until recently. The notion of ASD was first introduced in 2013 in the 5th revised bill of the Diagnostic and Statistical Manual of Mental Disorders (DSM) which the World Health Organization (WHO) made for objective diagnostic criteria. Before that, ASD was called autism and was used only to describe an individual who showed every feature of ASD, and it did not include Asperger and savant syndrome, which are included now. However, these criteria made diagnosis even harder, as ASD shows several categories of characteristics. This is because numerical categorizing is impossible in ASD, such as categorizing hearing impairment in decibels. This is the reason people should focus more on the "spectrum" and less on "autism," but society has gotten hung up on "autism."

*Spontaneous language sampling: Expressing one's intention to others' questions, not just repeating a memorized utterance without knowing the real meaning.

Remains of Outdated View

In 1948, the Times published an article that said, "It is like [keeping] them neatly in a refrigerator which didn't defrost…" to describe leaving an ASD child with their parents. The old misconception that ASD is caused by the cold reaction of parents started from Austrian lumber merchant Bruno Bettelheim, who was neither a psychiatrist nor a psychologist. He took the view of Freudianism, which purported that mental illness was a psychological deficiency, a perspective from the 60s and 70s when brain science was not well developed. He suggested that children who want their parents'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▲ Bruno Bettelheim made an erroneous claim about ASD child parents.

love could not endure the horrible conditions that cold parents gave and turned their back on society, which he believed was the reason for ASD. Bettelheim, who had been in a Nazi concentration camp, even alluded to parents of ASD children as Nazis. He implied that such parents destroyed their children's minds like what Nazis did to adults in concentration camps. On a famous TV show, he said, "No one takes care of the child who has an extreme disorder. Sometimes some think that it would be better if they were dead," causing the misunderstanding surrounding parents of ASD children to start taking root without any factual evidence. This made the public think that parents of ASD children wished their children were dead.

These outdated views on ASD are being disproved through diverse neurological research, but the theory of Bettelheim remains, with wrong perceptions of ASD remaining. Kim said, "The fact that we cannot blame parents for their children having ASD is being scientifically verified, but in a vast number of cases, the parents still psychologically feel responsibility." He explained, "A kind of social gene inherited via culture makes people think psychologically the same as before, even though they know that the reason for ASD is not the parents' doing." In this situation where the main cause of ASD is not known, the cultural tendency to blame the parents persists.


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▲ The Times likened parents of ASD children to cold refrigeration, which is preposterous.

Distinction and Discrimination, Pursuing Economic Rationality

"Hans Asperger, the first person to do research on autism, was a Nazi collaborator. His job was to separate children who were worthy of living from those who were not. To the Nazis, people who were not worthy of living were those who were physically disabled, terminally ill, or mentally ill, including autistic people. Even just 80 years ago, autism was considered an illness that made life not worthy of living." As the line of the drama "Extraordinary Attorney Woo" shows, many mental illnesses including ASD were defined to distinguish between superior and inferior for the purposes of eugenics. The division came up in the process of pursuing an efficient method for social integration and economic production in a capitalist society. It was deemed irrational to improve or newly make an institution for those with ASD, the minority, when institutions for education and medical treatment for non-ASD individuals, the majority, were already constructed.


©The New York Times

▲ Hans Asperger sorted children into normal and abnormal.

"Even now, hundreds of people click the 'like' button on a comment that says, 'It is a national loss if a medical student dies and an autistic person lives.'" As the line of the drama "Extraordinary Attorney Woo" demonstrates, evaluating human worth from the view of society and economy brought about a dichotomous division between disabled and non-disabled and normal and abnormal. The 20th-century French philosopher Michel Foucault observed in his book "History of Madness" that society classified the madman as one who needed treatment because rational and logical thinking had hardened the standard of humans after modern times. He further claimed that psychiatric hospitals and psychopathology were made to distinguish madmen from

non-madmen. He thought that the character of modernity was that when one centralized criterion is established, things that do not satisfy the criterion become abnormal and are subject to punishment. In his view, ASD is distinguished as atypical from the standard of majority and rationality, and the discrimination against those with ASD can be seen as a punishment that is enacted by failing to meet the standard.

Solution

Toward More Dramas Like "Extraordinary Attorney Woo"

The drama "Extraordinary Attorney Woo" diverges from the conventional portrayal of ASD, and the public is responding positively. People are not sympathizing with Woo because of her disability, but they truly like Woo, so they are regarding ASD with interest. Kim said, "Like brings interest, and interest brings a mind of understanding. Conventional awareness education about the disabled neglected the previous step of understanding and blindly tried to force people to understand," explaining that this recognition improvement requires people to help disabled people with a superficial understanding. He added that such an artificial demand rather deepened the gap between disabled and non-disabled people. It is necessary to devise a way to help the public gain interest in ASD and many other disabilities to reach a deeper appreciation.

To improve the wrong understanding and prejudices against people with ASD and disabilities, the view of the public should change from sympathy into true interest and understanding. Kim said that programs for recognition improvement and policy research for changing perceptions are meaningful, but the power of the media to change perceptions is great. Making more diverse dramas and movies about ASD can be one method, just as the recent drama "Extraordinary Attorney Woo" shows one spectrum of ASD to the public. It can also contribute to the progress in the area of ASD, not only by with perceptions. It has been said that the movie "Rain Man," another story about ASD, advanced the development of ASD for almost 25 years. In addition, if diverse characters of diverse works show the rainbow of ASD, people will understand the concept of the "spectrum" much easier.

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▲ There should be more movies and dramas about ASD which changes the prejudicial view of it, such as "Extraordinary Attorney Woo" and "Rain man."

Natural Beings Living Together

"Cold parents," the phrase that blames ASD parents, raises the question of whether there is anyone responsible for ASD in the first place. To begin with, perceiving ASD as a negative condition such as an illness for which someone must be blamed is wrong. Kim said that ASD clearly has an aspect of illness, as it has diagnostic criteria, but looking at every case of ASD as an illness is problematic. He said, "There are many with ASD who need medical treatment, but there are also many with ASD who do not have to enter a hospital or be treated as a patient," explaining that viewing every person with ASD as having an illness again makes a problem of representation. He added that people do not think that a person who has a little cough and slight fever has a fatal disease, but the doctor still can prescribe medication and diagnose it as cold. He said that although ASD is similar to that, it is still viewed too negatively by the public.


©Attitude

▲ ASD may be nothing more than one of the characteristics of a person.

As it is defined by the idea of a "spectrum," there is a need to accept an individual with ASD as someone who is just "different." Kim mentioned, "I want people to think of ASD more naturally, rather than taking it too seriously." He also said, "To think of ASD as a difficulty and hardship that indeed requires help puts a burden on both ASD and non-ASD people." Without real interest, understanding them and requesting help for them may just lead to sympathy rather than sincere caring. Kim said, "Is it not much more appropriate to think of them like a pregnant woman or the elderly, people with whom we live alongside?" Kim also mentioned that ASD can be accepted positively, like in the show "Extraordinary Attorney Woo."

Do Not Maintain the Frame of "ASD"

The way that Elon Musk, Temple Grandin, and Albert Einstein, who are famous for having ASD, socially succeeded, was not through the conquest of the disability itself. The reason for their success was because they harnessed their strength and showed their ability, not because they conquered the symptoms of ASD itself. However, the whole focus in education and welfare provided to ASD is all about helping those with ASD to look similar to those who are non-ASD. "Masking" is necessary training, which ASD individuals needs to go out into society, but it should not be the only help that is provided. Kim said, "It is sad that there is only basic education and support focused on only allowing ASD individuals to just function in society." There should be many ways for people with ASD to not only adapt in society but also to develop their ability, to give diverse possibilities.

There should be more jobs for ASD individuals, wider and more diverse than only work as baristas or in packaging, and delivery, which are the jobs provided these days through education. "Autism@work" is a good example, providing job training and education for social adjustment and seeking employment opportunities, conducted by the German enterprise application company SAP. Kim said that if these systems are realized and able to support creative and capable ASD individuals, one person with ASD may change Korean society. In a capitalist society where economic rationality is the top priority, the pursuit of ethical rationality can bring greater value and efficiency to the world, as Elon Musk and Einstein did. Just as in the cases where people with disabilities, such as Beethoven, Da Vinci, and Gogh, changed the world, steady attention to ASD and social development should be promoted in Korea.

©Chief Executive

▲ SAP counducted the job education and employment program for ASD individuals.

"We have said that autistic people lack empathy, but actually, it was a capability that we lacked: the ability to empathize with them." This sentence from the book "I'm a brain scientist with an autistic son" tells us how we treat those with ASD. The subjects who lacked empathy were non-ASD, not those with ASD. The public, who did not care about what autism was, what it was like, or the perspective with which non-ASD individuals viewed them, is now getting to know about ASD little by little. Praise and criticism of the drama "Extraordinary Attorney Woo" and the controversies indicate that society is taking the first step, learning about ASD. Reflection and discourse on the perception of autism should not end here. The place where the public should head is to be interested in ASD and understand it by looking for information about it.


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The Next Sun of Earth: Nuclear Fusion Energy

By Lee Jue-hyun
Staff Reporter of Theory & Critique Section

The surface temperature of the Sun is about 6,000 degrees and its central temperature reaches about 15 million degrees. Is there a place on Earth hotter than this extreme temperature? As civilization develops, humans are facing a so-called "climate crisis" and need more and more energy at the same time, with increased emphasis placed on the importance of sustainability. Renewable energy, which has emerged as an alternative to fossil fuels, which are expected to be depleted in the near future, is so greatly influenced by the environment that there are a lot of restrictions on energy production, and it is hard to produce a stable amount to support the entire planet. Accordingly, there is an active movement to create an infinite and eco-friendly "Artificial Sun" on Earth. The Artificial Sun, which would produce huge amounts of energy through nuclear fusion and use a similar nuclear fusion power method as the Sun supporting the Earth's ecosystem, is being studied as a new energy source for mankind. Despite the fact that science and technology, which could be used as weapons, are very sensitive issues to a country, each country is currently gathering to study nuclear fusion and showing an ideal state of an international community. Celebrating Renewable Energy Day on October 23, The Argus will dig into fusion energy and the topic of an artificial Sun, which are currently attracting attention as an energy source to supplement existing renewable energy and nuclear power.

THE ARGUS Knowlege iN

nuclear fusion energy

Q What Is the "Next Sun" of Earth?

A

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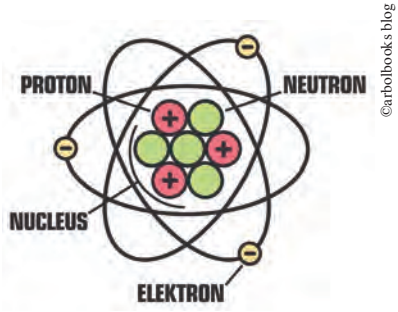
Nuclear Fusion Energy: Why Is It Called an Artificial Sun?

The Sun, the nearest star to Earth, can shine on its own. The Sun is a hot mass of gas, mostly made up of the lightest element, hydrogen. Hydrogen nuclei fuse together due to the high temperature and gravity of the Sun. It generates light and heat because of this nuclear fusion reaction of hydrogen inside. The Sun uses nuclear fusion reactions to generate about 1017 W of energy in just 0.0001 seconds, the amount that the world uses in a year. This fusion reaction of the Sun is expected to continue for more than 5 billion years. Thanks to this, all life on Earth can live and breathe now and in the future.

Scientists are studying nuclear fusion as a new source of energy for the Earth. Fusion energy is new renewable energy with no need to worry about fuel because it uses the same principles as the Sun in generating a huge amount of energy. In this respect, a fusion reactor is called an "Artificial Sun." Nuclear fusion in almost every star, including the Sun, takes place in a way that hydrogen is converted into helium. Currently, fusion power generation has adopted the same principle. For example, assuming that one hydrogen atom has a mass of 1.5 and one helium atom has a mass of four, if you smash four hydrogen atoms together to form one helium atom, the remaining mass of two remains after making helium. In this way, the reduced mass of energy is released in the fusion process, which is fusion energy. Fusion energy is safer than nuclear energy, which causes the risk of radiation exposure. It is a next-generation clean energy that can compensate for the weakness of existing alternative energy that is easily affected by the environment. Therefore, experts are focusing on the success of fusion power plants, artificial Suns, with the goal of achieving results by 2050.

Nuclear Power vs. Nuclear Fusion: Is Nuclear Energy Dangerous?

The nuclear research that people are familiar with is nuclear power. After experiencing several nuclear power accidents such as the Fukushima nuclear disaster in 2011, opinions on nuclear research are still divided. In this situation, it is natural that there are similar concerns about "nuclear" fusion power generation. However, nuclear power and nuclear fusion research are different regarding how to generate the power, which is also closely related to the safety difference between them. Nuclear power and fusion power both produce nuclear energy. Unlike thermal power using fossil fuels, they do not emit carbon dioxide, and unlike alternative energy sources such as hydroelectric power, wind power, and solar power, they are also useful in that they are not restricted by the environment.



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However, nuclear power is achieved through nuclear fission. Everything in the world is made up of very small atoms,* with a nucleus at the center and electrons orbiting it. Nuclear fission generation uses energy generated when a heavy element,* such as uranium or plutonium, is divided into atomic nuclei and

electrons. At that time, high-level radioactive nuclear waste,* which is well known as a risk factor for nuclear power, is generated. In addition, nuclear fission power is at great risk because it is impossible to stop without external intervention once its energy generation begins. On the contrary, fusion power uses the energy generated when atomic nuclei combine. It is a method of combining light atomic nuclei such as hydrogen to form heavy atomic nuclei, but unlike nuclear power, high-level radioactive materials are not produced. Although some radioactive material is used in the process, the half-life* is about 12 years, which is a lot shorter than that of materials used in nuclear energy, which takes about 700 million to 4.5 billion years. So, there is almost no risk of radioactive contamination. In addition, Na Yong-su, Professor of Nuclear Engineering at Seoul National University, explained, "Just as the fire rather goes out if too many trees are put in it during a campfire, nuclear fusion power generates considerable energy with a little fuel and stops if there's too much fuel." In the first place, fuel is added little by little and if too much is added the reactor stops generating, which makes it impossible to explode.

*High-level radioactive nuclear waste: Waste with high-intensity radiation generated during reprocessing of remaining nuclear fuel or nuclear fuel.
*Atoms, Elements: Atoms are the smallest particles that can no longer be split, and elements are the basic components of materials that can no longer be decomposed. For example, a water molecule called H20 is a substance consisting of two hydrogen atoms and one oxygen atom, and two elements, hydrogen and oxygen.
*Half-life: The period of time it takes to be halved. It is one of the factors that shows the effects or risks of radioactive materials.

Study with the World

The world is now working together for the success of fusion energy power. The International Thermonuclear Experimental Reactor (ITER) is a large superconducting fusion experiment device designed to ensure minimum generation efficiency that can commercialize fusion energy. It is the largest joint study in history, combining the efforts of the European Union and six countries: South Korea, the United States, Russia, China, Japan, and India. Each country manages each part of the ITER device, and then merges it. The Korea Superconducting Tokamak Advanced Research (KSTAR) is a Korean nuclear fusion reactor that succeeded in independent development by South Korea in 2007. Thanks to Korea, KSTAR and ITER have the same operation method as "High-Confinement mode (H-mode)." H-mode has been able to compensate for the chronic problem that the fusion reactor stops when the internal environment becomes unstable. Since then, the possibility of success has increased, as it is possible to avoid the problem of impurities made during the operation stopping the device.

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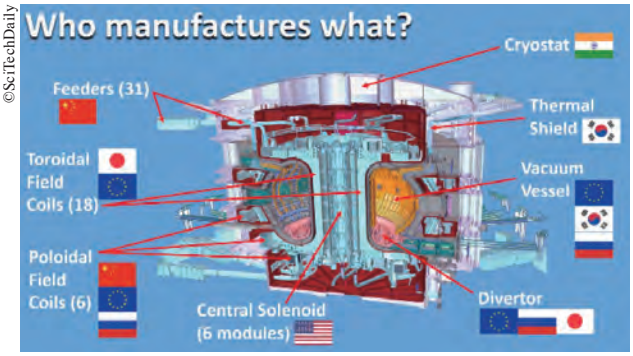

▲ The ITER member states collaborate to build each part of ITER. South Korea is involved in Thermal Shield and Vacuum Vessel.

Although each country has device manufacturing technology, the reason they study together is mass production. Fusion power reactors developed by individual countries, such as KSTAR, scientifically discover the possibilities of fusion power generation. To verify that these possibilities can be realized, those reactors confirm that large capacity production of fusion energy is actually possible through ITER. If KSTAR develops homes, which are key technologies for fusion power commercialization, ITER is conducting larger scale experiments so that the small houses can actually become a country called fusion power generation. ITER is meaningful in that countries that were at odds during the division of the 20th century are working together and showing an ideal international society.

Q How to Make an Artificial Sun

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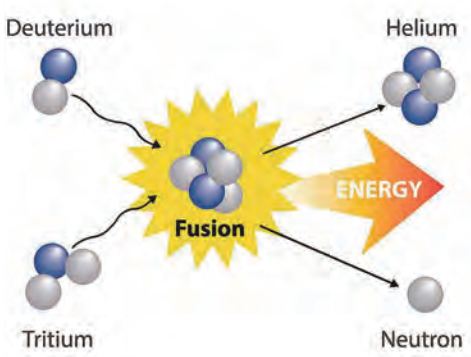
Materials: Fuel for Nuclear Fusion Reaction

The artificial Sun, like the real Sun, uses hydrogen for fusion. Hydrogen is the most common element in the universe, and the lightest at the same time, making it relatively easy to cause a fusion reaction. When trying to attach magnets of the same pole, just as it is difficult to attach magnets due to the property of magnetic repulsion, atomic nuclei with the same (+) property push each other away. But as magnets of the same pole can be instantly attached to each other by pushing them harder than the pushing force, fusion reactions can occur when greater energy than the force they do not want to stick to is applied. The larger the number of protons in an element with a (+) pole property, the greater the force required, so hydrogen with one proton is used.

However, fusion power does use hydrogen, but uses deuterium* and tritium,* which are isotopes of hydrogen. Tritium is a radioactive material, but unlike fuels used for nuclear energy such as uranium, it is much easier to manage. Currently, deuterium-tritium fusions are used for fusion power generation. On Earth, where the environment is different from the Sun, a fuse of deuterium and tritium is more advantageous because the temperature causing nuclear fusion is relatively lower than that of hydrogen. Although deuterium-deuterium fusion is also possible, deuterium-tritium fusion is considered as an optimal combination because of its better fusion reaction and better energy efficiency. Deuterium exists in about 0.015 percent of seawater and can be secured indefinitely unless the seawater dries. On the other hand, there is a very small amount of tritium in seawater which makes it really expensive. Therefore, it is obtained by reacting lithium with neutrons in a fusion device. Lee Sang-gon, Principal Researcher at the Korea Institute of Fusion Energy, said, "Lithium, known as white oil, is also rich on Earth, about 0.17 mg per liter of seawater. This amount is almost infinite for humans to use." In other words, fuel for fusion energy is not difficult to prepare.



*Deuterium, Tritium: An element having the same chemical properties as hydrogen, but having different mass. Most of the natural hydrogen is called light hydrogen because it has one proton. If one neutron is attached to it, it becomes deuterium, and if two neutrons are attached, it becomes tritium.

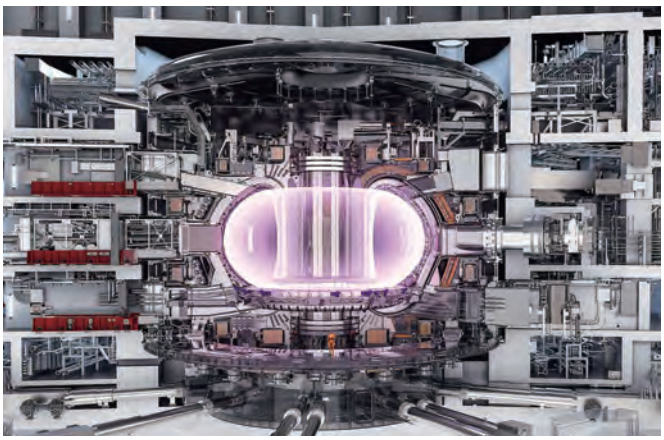
Condition for Production: High Temperature Plasma and Strong Magnetic Field

In order for nuclei to meet and fuse, the temperature should be raised, and separate electrons should orbit the nucleus. The state in which the atomic nucleus moves freely apart from the electron in this way is called plasma. The Sun allows plasma to stick together without scattering with its high temperature and strong gravity. Therefore, unlike the Sun, the Earth, which has a low temperature and weak gravity, a temperature of more than 100 million degrees is required, which is seven times hotter than the center temperature of the Sun, in order to cause fusion. Professor Lee said, "A state of high-temperature plasma of more than 100 million degrees is necessary for deuterium and tritium with the same anode to overcome electrical repulsion and fuse. Of course, the temperature is very high compared to the Sun, but it is the lowest compared to other possible fusion reactions on Earth." As such, it is important to maintain a high-temperature state in a fusion reactor.

Also, as there is no strong gravity like the Sun on Earth, another environment is needed. Ko Jin-seok, Principal Research Scientist at the Korea Institute of Fusion Energy replied, "The plasma-state hydrogen nuclei that make up the Sun are not dispersed by gravity and are well clustered, while the plasma implemented on Earth is constrained by a strong magnetic field instead of gravity." This is because nuclei can be trapped through magnetic fields, as they are charged particles. Currently, fusion reactors are using various methods to create ultra-high temperatures of 100 million degrees. This can be achieved by using methods such as resistance heating, the principle of induction used in the kitchen, electromagnetic waves, which are the principle of microwave heating food, and neutral particle beam that directly emits high energy to plasma.

Condition for Successful Achievement: Nuclear Fusion Reactor

After reaching an ultra-high temperature plasma state and preparing an environment that allows it to stick together, power can be obtained only by maintaining this environment for a long time. To this end, a nuclear fusion device called an artificial Sun is used to make a net with a strong magnetic field, trap plasma, and float it in the air without bumping into the wall. Several types of fusion experimental devices have been devised, of which the "Tokamak" design is mainly used. Tokamak, first proposed by the Soviet Union in 1951, is a donut-like device surrounded by huge electromagnets, named after the Russian initials meaning "donut-shaped container using electromagnet coil." When deuterium and tritium, which are fusion fuels, are put into this vacuum device and the temperature is increased, plasma with electrical properties does not hit the wall of the container directly and rotates inside the device thanks to the magnetic field by the electromagnet. After that, when the plasma temperature reaches 100 million degrees, a fusion reaction occurs.



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▲ A donut-shaped Tokamak is applied to fusion reactor.

Currently, ITER uses a superconductor* whose electrical resistance becomes zero at a specific temperature. The smaller the electrical resistance, the more advantageous it is for the fusion device to be able to run for 24 hours. Yoon Ei-sung, Professor of Nuclear Engineering at UNIST, explains, "We use superconductors with zero resistance because additional force is needed to create a magnetic field in a state of resistance." A magnetic field is needed to trap plasma, and a current must flow to create a magnetic field. But with resistance, the energy needed to create a magnetic field is used to lower the resistance. This reduces the efficiency of the device that attempts to generate a large amount of energy by putting in a small amount of energy. Therefore, when using a superconductor, it is possible to build a large-scale device that supplies more current and creates a stronger magnetic field, but does not need to use a large amount of power due to low power consumption.

*Superconductor: A fully antimagnetic material with zero resistance under certain conditions and completely offsets the surrounding magnetic field.

Q What Would an Artificial Sun Be Like?

A

Sort by | View All

Challenge for Everyday Use Energy

Fusion research towards the artificial Sun will continue to challenge the plasma duration of 300 seconds in the future. 300 seconds is the minimum duration that fusion energy must be achieved in order to be commercialized. If plasma duration is maintained for 300 seconds, the fusion power plant can be operated 24 hours a day, 365 days a year. The current level of research is in the fusion reactor phase. If KSTAR and other small and medium-sized fusion reactors are verified by a large fusion reactor, ITER, and the possibility of commercialization of fusion energy is verified, they will move on to the DEMOnstration (DEMO) stage. Ultimately, the development of fusion power can be completed by succeeding in a fusion power plant that can produce stable power.

KSTAR, which set the record of 30 seconds for the first time, recently came up with a new method of "FIRE mode" to obtain 100 million degrees of ultra-high temperature plasma, which was discovered with team Na Yong-su, Nuclear Engineering research team at Seoul National University. Compared to the H-mode, more stable operation is possible. In an interview with the Korea Lecturer News, Professor Na said, "It is a case that shows that Korea's fusion research can be carried out in a more creative way than before by analyzing the results of the failed experiment," expressing expectations for the new method. The key to fusion research was how to maintain high-temperature plasma for a long time. Through FIRE mode, KSTAR research can move closer to the stage of fusion commercialization.

With the successful operation of a fusion power plant, fusion energy can be commercialized like other conventional energy generation methods. Hwang Yong-seok, Professor of Nuclear Engineering at Seoul National University, said, "If fusion energy is commercialized, it will be operated in the form of power plants like thermal and nuclear power plants and can be sold as electricity. The way we turn the energy from the fusion into steam, turn the turbine generator,* make electricity, and send it to the user will be the same," speculating about after fusion energy is commercialized. Fusion energy, like current fossil fuels and nuclear power, is expected to be a new type of export for the country.

*Turbine generator: A device that generates power directly by the combination of a generator and a turbine. Turbine rotates and generates electricity using energy produced through hydroelectric power, nuclear power, fossil fuels, etc.

New Clean Baseload Power

Fusion power plants have the potential to establish themselves as national baseload power in the future. Baseload electricity is a steadily produced electric energy that is the basis of daily life. Nuclear energy was the new baseload power of countries that wanted to reduce fossil fuel use, mainly in developed countries. This is because despite the radiation problem, it is the best way to supply more power than fossil fuel generation regardless of weather and without emitting greenhouse gasses. However, future energy sources must meet the requirements of environmental friendliness, source safety, resource infinity, and social acceptability. Fusion energy can be used as an eco-friendly energy source in that it meets all of the requirements of the 21st century. Professor Lee said, "The fusion power, based on unit mass emits about four times more energy than fission, consumes less fuel when operating power plants of the same size, and there is no risk of explosion. In addition, while other renewable energy has many constraints due to environmental factors, fusion energy has few constraints on those factors. So, if fusion energy is commercialized, it will grow to a stage where it can be responsible for national baseload electricity."

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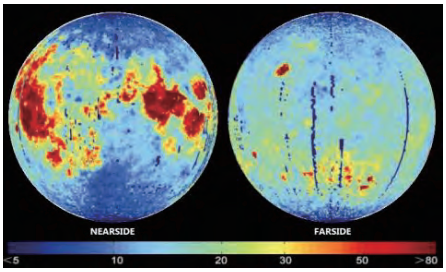

▲ The moon is found to obtain lots of Helium 3. If "Danuri" succeeds, South Korea is expected to study a completely clean energy source.

With the successful launch of the Korean Space Launch Vehicle "Nuri" on June 21, 2022, South Korea is expected to have especially higher sustainability in nuclear fusion energy. One of the reasons why the success of the lunar probe "Danuri" is expected after Nuri, is to acquire resources through lunar exploration. At least one million tons of Helium 3, which is said to be almost impossible to obtain on earth, is estimated to be buried on the moon. This is because the moon has no atmosphere and absorbs more helium 3 from the solar wind than Earth does. Professor Ko said, "Instead of tritium, fusion through helium 3 can produce 100 percent clean energy that does not involve any radioactive isotopes. Now that exploration of the moon has become more realistic, it is another notable point for nuclear fusion development." That is, fusion energy is an energy source that has the potential to completely escape from radioactivity.

Who Owns the Technology?

The ITER project, in which seven nations participate, shares data. After the project, each participating country has intellectual property rights proportionate to research funds and spot investment shares contributed. The data obtained in this way will be used in the construction of a DEMO that will be conducted in each country after the completion of ITER. Each country determines its own design or construction method. Professor Ko explains, "We don't pay royalties to Newton, Einstein, or their descendants when we develop engineering technologies using basic physical theories such as universal gravitation or relativity, but it's similar to obtaining a patent on the final product."

By participating in ITER, Korea has secured the right to share ITER-related technologies developed by investing more than $1.5 billion, and is expected to have about 10 percent of the intellectual property rights in the future. Professor Ko said "At the DEMO stage, there will be a kind of technological competition among countries similar to what we see with today's nuclear power plants. In the end, we need to produce and share as many research and development achievements as possible at this point to lay the foundation for future competition," stressing the importance of domestic research. There may be concerns that sharing independent technologies with the ITER business may be disadvantageous for the nation. However, each participating country plays a specialized role in the development of fusion power, leading to the growth of fusion research itself. Professor Lee said, "There are cases of using KSTAR device construction experience and technology during ITER device construction, but I think this is an investment for power plant construction rather than technology leakage. Through such active investment, it is expected that South Korea will succeed in an independent development in the future with economic feasibility and safety secured." It is a device and study material for people around the world to complete fusion energy by collecting knowledge from various countries around the world.

Nuclear research has great potential than what people have encountered so far. It may be more useful, or safer for humans. What people should not forget in upcoming research is sustainability. The previous power generation method has been consumable and limited. On the other hand, the currently developing nuclear fusion energy will be the highest level of energy that people have dreamed of. New research and development, including nuclear fusion development, requires public attention. If investment in the field is activated through public interest, the research environment can also be improved. As not only Korea, but also countries around the world are striving for new knowledge energy, I hope readers of this article pay a lot of attention to the next Sun of Earth, which will become the clean energy of the future, and root for the success of this research.

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NFT, Foundation To the Future

By Shin Jun-seo
Editor of Social Section

On February 22, 2022, a user named "Jesse" paid US$208,000 to buy ownership of the dunk scene of the National Basketball Association (NBA) player LeBron James. He bought a digital asset issued with Non-Fungible Token (NFT) technology that can specify who owns online content such as photos and videos. In another example, Twitter founder Jack Dorsey's first tweet, "Just setting up my twttr," was made into an NFT and sold for 3.5 billion won (US$2,524,360.05). As such, one of the hottest topics in 2021 was NFTs.

©pixels

▲ A user named "Jesse" paid US$208,000 to buy ownership of the dunk scene of the NBA player LeBron James.

However, in the middle of 2022, the topic of NFTs has been down-trending. According to Google Trends, a trend analysis tool, the frequency of NFT searches, which was 100 from January 16 to 22, 2022, fell to 18 from June 5 to 8. In addition, in April, Sina Estavi, the CEO of Malaysian blockchain company Bridge Oracle, put Jack Dorsey's tweet NFT on auction on the NFT Marketplace Opensea, and the highest bid price was only 17 Ethereum (US$52,462). It became about 50 times cheaper in just about a year. There is an "NFT bubble controversy" over this, and people's interest is rapidly cooling. But this is a natural phenomenon that finds the true meaning and status of NFTs by solving misunderstandings, such as overestimating the value of an NFT by viewing that NFT itself as a digital asset. Some people claim that there is still a lot of potential that has not yet been realized, such as asset transactions on the metaverse. The Argus wants to explore how the subject of NFTs, once a hot topic, has cooled down and what its potential will emerge in the future.

Before Reading

Block Chain: According to a paper "The Authentication and Security of Virtual Currency Exchange" written by Professor Kim Do-goan at Wonkwang University, it defines block chain as "A distributed data storage technology that stores data in blocks on online transaction books, connects them in chain form, and copies them to numerous computers at the same time." Whenever a new transaction occurs, the information is made into a separate block, and this block is connected to the existing book. Unlike keeping transaction records on a central server, all participants in the transaction have a record of the transaction history, so it is impossible to forge or falsify because all transaction participants share information and check it.

Virtual Currency: Assets that do not have a physical form (like paper money or coins) and are traded online. Since it is distributed based on blockchain, transaction mediators such as governments and central banks are not involved, there is no production cost from issuing assets, and transaction costs can be greatly reduced. For example, this category includes cryptocurrencies, types of virtual currency, such as Bitcoin and Ethereum. Bitcoin and Ethereum are something like real-world money, and NFTs are like gift cards. After investing in an NFT with Ethereum, the NFT can be converted into real currency later.

What is an NFT?

NFT stands for Non-Fungible Token and is a virtual token* that verifies the owner of a digital asset using the block chain technology. It is used to represent the originality and ownership of digital assets by containing addresses indicating digital files such as pictures and videos in tokens. An NFT is a kind of a certificate of ownership. Therefore, an NFT can be said to be just a digital certificate, different from virtual and digital assets, which has the definition of "Electronic token that can be traded or transferred electronically as having economic value." An NFT is a certificate that gives a certain value to digital assets, a "helper" that helps create value.

A typical feature of NFTs is that each token is identifiable through a unique transaction hash*. In simple terms, each NFT has a unique ID, so there cannot be more than one identical NFT in the world. Compared to Bitcoin, cryptocurrencies such as Bitcoin can be replaced. For example, there is no problem exchanging one bitcoin for another. Even after this exchange, one bitcoin in the wallet maintains the same value as the bitcoin before the exchange. However, an NFT is different, and has its own irreplaceable value. For example, say that someone went to a BTS concert wearing Nike clothes and was lucky enough to get BTS's autograph. If so, the clothing with the uniqueness of the BTS signature has a unique value that is different from any other Nike piece of clothing, so it would not remain at the same original value when exchanged for other Nike clothes.

*Token: A token expresses an asset into digital form. It has various uses such as governance tokens and utility tokens.

*Transaction hash: A transaction hash can be viewed as a transaction ID. It takes the form of strings and numbers to help identify transactions in a blockchain of a particular coin.

Principles of NFT Technology

NFTs record ID, which are unique identifiers for tokens, during the process of minting, transfer, and burn. Since NFT has no physical entity, the ID is almost the only way for the NFT owner to prove that he or she is the owner. This unique ID is like a resident registration number. Minting, a word derived from mint, which means casting money, is a process of giving unique value to digital assets as a concept of imprinting a unique serial number to digital assets. After minting, link information, metadata*, and minting date and time are recorded in the NFT; and whenever a transaction occurs after that, information such as sales, buyers, trading date, and trading amount is also recorded. In this way, minting increases the reliability of the information and clarifies ownership because the information recorded on

the blockchain cannot be forged or altered. Park Hye-jin, a professor at the Seoul School of Integrated Sciences & Technologies, said, "Minting is an act of 'tokenizing' digital files so that they can be traded through a blockchain network. At this time, in order to make the NFT exist as the only one in the world, it goes through the process of making the token, which represents the digital file, unique. Making a digital file into a token does not mean that the file itself becomes a token, but that the original file is put on the server or into the cloud and contains the path, something like a Uniform Resource Locator (URL), in the token."

An NFT, which has become unique through the minting process, can be traded and monetized through transactions. Currently, most exchanges that can freely trade NFTs are overseas platforms. NFTs can be traded on OpenSea, LaRible, Mintable, Makersplace, and Binance. Transactions are largely made in the form of auctions and fixed price sales. The auction is in the form of starting bidding from the lowest price when the NFT work is released and people who want to buy it raise the price through competitive bidding. The ownership of the file will be transferred to the person who has paid the highest price before the deadline. A fixed price sale is a little different from an auction. It proceeds with a system in which sellers set prices in advance and raise them.

*Metadata: According to Wikipedia, access on September 25, 2022, metadata is defined as "Data about data, data with a certain purpose." Specific data can be easily found since metadata is used to describe other data. For example, a goal scene can be extracted from a video recording the World Cup using metadata.

NFT Bubble Bursting

The reason why NFTs have been able to take off in the first place is that they enabled digital files that were valueless into valuation. An NFT can be seen as stamping a stamp that can be checked by everyone and that cannot be forged or altered by choosing only one of the digital files and declaring, "This is the original file." Professor Park said, "As people learned that digital files can also have 'originality' and 'scarcity,' humans' 'desire to possess' began to reach out to digital files, and this desire to own them enabled 'value assessment' of the digital asset." Oh Hyun-ok, a professor in the Department of Information System at Hanyang University, also said, "We buy a CD even though we don't listen to it often, because we feel like we own the music. It must have been the same for NFTs," adding that the desire for ownership based on originality influenced NFTs.

But NFTs, which once had been growing with great speed, now seem to be considered in a downtrend recently. The monthly trading volume of the global NFT marketplace as of the end of May 2022 was US$4 billion, down about 75 percent from January 2022. Nick Rose, founder and CEO of NFT Platform Ethernity Chain, pointed out on Korea Economy TV, "The NFT market has grown explosively thanks to economic stimulus measures due to COVID-19, but the growth of the NFT market was too fast." As such, it is argued that the bubble in the NFT market is collapsing as the misunderstanding of the notion of NFTs is resolved and its shortcomings are revealed. One of the disadvantages is that NFTs do not provide a copyright monopoly, but an ownership acquisition. Taking real artworks as an example, buying an artwork in real life does not mean that you will acquire copyrights. But there is a difference in that digital materials are easy to duplicate and own copies of, while real artworks are hard to copy because they are tangible objects.

©kubera

▲ NFTs have converted digital files that were valueless into valuation.

NFTs, the so-called "original certificate," are separate from copyright. Even if you buy an NFT and prove that this is original, you do not have the authority to reproduce it, so if the original author copies the original in large quantities and then sells it in large numbers on the NFT platform, the value of the original work will drop sharply.

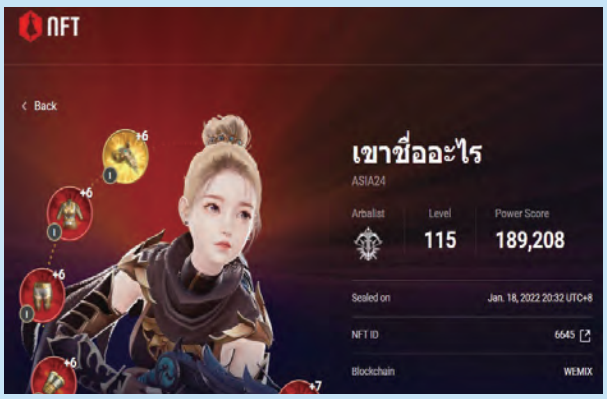
Resolved misunderstanding is also one of the reasons for the decline in NFTs. Hong Ki-hoon, a professor at the School of Business Administration at Hongik University, said in an interview with the Economist in June 2022. "In the NFT market last year, digital asset prices soared just because ownership was recorded in the form of NFTs. It was absurd. This phenomenon occurred because the concept of NFTs was misunderstood as a digital asset. In the process of resolving misunderstandings, the price of digital assets has fallen, and it influenced NFTs. The value of the content itself, such as digital art to which NFTs are applied, is what is important." Professor Park also said, "Not all NFTs are valuable. An NFT becomes valuable when something valuable has become an NFT. But because NFTs are just beginning to be valued, prices have jumped and now are falling because there are no proper methodologies or generalized standards," she said. She stressed that many NFTs, which were expected by people in the early days of the market, were actually subject to false valuation. She also stressed that the downtrend of NFTs does not mean that the value of NFTs as a tool to promote the content is going downwards. It is just a process of NFTs finding their proper place and value.

The Potential of NFTs
The Process of Finding the True Meaning and Usefulness of NFTs

The Potential of NFTs, the Metaverse

Although interest in NFT is decreasing, most experts believe that we are now seeing the process of spreading the true meaning of NFT and opening its potential. In other words, since NFTs are a new market and the potential has not fully blossomed, this time is only an early turmoil which is common in any field. In fact, it is natural for bubbles to burst. In the early days of the Internet, the Internet suffered a "Dot-com bubble," a bubble economy phenomenon that occurred as the internet-related field grew; the growth process of the NFT market is likely to flow similarly. According to the Economist, Changpeng Zhao, founder of Binance, the world's largest virtual asset exchange platform, "In the beginning of the Internet, there was also a bubble and it eventually burst. It did not wipe out the Internet. The technology of blockchain and NFTs is strong enough that NFTs will last longer than we think."

As such, NFTs will eventually find an area that can fulfill their utility, and the representative field of it will be the metaverse*. NFT will link with the metaverse and emerge as a new communication channel for the MZ generation, the main trading floor of NFTs. In the long run, the rise of the metaverse will fade the boundaries between the digital and real worlds, and NFTs will play a key role in triggering innovation in the new virtual world. First of all, NFTs allow users to expand their world by trading assets with other users on the metaverse, and NFTs can also serve as the metaverse connection with reality. In addition, digital assets acquired in the virtual world can be cashed in the real world by granting distinctive values through NFTs. Conversely, real-world assets may be reborn in a virtual economy through NFTs. WEMADE, a Korean game



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▲ Characters posted on the Mir4 NFT market were traded with millions of won.

company, launched the blockchain game Mir4 in August 2021, and introduced an NFT market in the game, which recognized users' ownership of items; characters posted on the Mir4 NFT market were traded at hundreds of millions of won. Virtual game items became NFTs and became valuable with distinctiveness and scarcity, so they were traded in high costs. Professor Oh predicted, "NFTs will play a big role in the metaverse, especially in games; and NFTs, which were only traded in the online world, will be traded in the global market."

*Metaverse: The definition of the metaverse has not yet been clearly defined. Professor Park said, "It is generally said as a three-dimensional virtual space where social and economic activities such as in the real world are used." According to Wikipedia, access on September 25, 2022, it can be also said as "A system that expands reality into a digital-based virtual world so that all activities can be performed in a virtual space."

Core of Virtual Economy, NFT

Because of this characteristic mentioned earlier, NFTs are called the core of the virtual economy, one of the components of the metaverse. In the future, the metaverse will have a huge and complex economic system that will operate not only in the game field, which is currently attracting attention, but also in all content, commercial, entertainment, and cultural businesses. The main technology that drives the economic system of the virtual world economic system to the linkage of the real economic system will be NFTs. Professor Park said, "The metaverse is not much different from real society. People must exist and interact, and economic action must be possible. Here, NFTs will function as a tool to ensure people's ownership and property rights and enable easy economic and social transactions."

Global companies such as Meta, Amazon, and Samsung Electronics are actively jumping into NFT-related markets, paying attention to the growth of the NFT market and the future of NFTs. Professor Park said, "Companies that already have a lot of assets: Gucci, Nike, Adidas, Tiffany & Co, are thinking about how to make their assets valuable in the digital world, and that's coming from their various NFT projects." As such, global companies are realizing the potential of NFTs and continuing to invest. Rather, after the excessive bubble of the NFT market bursts and stabilizes afterwards, the NFT market, in the true sense, will open. The value of NFTs should not be questioned based on the initial market turmoil caused by misunderstanding and overestimation of NFTs.

Can people imagine a world without the Internet? The Internet is now an indispensable technology. And NFTs will also be like that in the future. In order for the metaverse, a new world and an upcoming virtual world to be properly implemented, users' active participation is needed, which requires high-quality digital content. An economic system is needed to consume and share this content, and this is where NFTs will play an important role. Recently, interest and expectations for NFTs seems to be cooling down as the NFT bubble is bursting, along with the impact of a global economic crisis. However, it is clear that we need to pay more attention to the true value of NFTs, rather than to be disappointed by the fact that the bubble of NFTs is bursting due to resolved misunderstandings. Since NFTs will enable the future core technology of NFTs, the metaverse, and real-world linkage.

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Love, the Most Igniting Material but Free

©Netflix

By Nam Gyeong-eun
Editorial Consultant

"Invisible man" may be someone's most desired superpower, but nobody would dare to be ignored as if they really were invisible. But there are some people whom the world often would pretend were invisible. Autistic individuals are part of this population. They are treated like children, or even nobodies, who are not able to "normally" communicate and handle situations with non-autistic individuals. It is because autistics have largely different scales and ways of accepting the world than others, which even vary significantly like a spectrum among themselves. Though it is still hard work to "train" autistics to "fit in" to the "ordinary" society throughout the world, which is only to suppress those gaps, the truth that the autistics are "forced" to narrow their own selves never disappears. Then suddenly, this July, the world came up with this lovely and admiring autistic female attorney, Woo Young-woo. With her, the world seemed to be sure to step a little closer accepting autistics the way they are, who were not so different from others, and understanding, even learning from, how creatively and innocently they think of the world.

©Netflix

▲ A scene from the drama "Extraordinary Attorney Woo" where a taxi driver ignores Woo's ability based on her unusual accent and gesture. Considering that Woo, portrayed as a genius attorney, is unfairly discriminated in the drama, the treatment that autistic people receive in reality is even worse.

©Raising Children Network

◀ Children with autism, grown-ups also, are often educated in order to get along with non-autistic world.

©Psychology Today

▲ Each autistic individual has their own scores on each plenteous category about features, strength, and difficulties, which is why it is called autistic "spectrum."

©Netflix

▲ While Woo has strong aversion to physical contacts, including holding hands, one of her client who is also with autistic spectrum seems to feel fine with contacts. Likewise, autistics have various features among themselves, just like non-autistic people, whose characteristics and personalities vary among themselves too.

Woo Young-woo is a character played by a Korean non-autistic actress Park Eun-bin, from the Netflix series "Extraordinary Attorney Woo." The show grabbed widespread global attention recently, ranking as Netflix's most-viewed series during August 2022, with 77.4 million hours watched. It is not this number that shows the drama's real influence throughout the world. The worldwide love poured in to Woo Young-woo, and led people to care about autism. The world started consuming autism. YouTube was full of channels producing their reactions about autism and Woo. People were clicking and leaving comments and sharing their thoughts about autism. The comments were about their real experience with autistics, how touched they were by Woo, how Woo's explanation about people being on the autistic spectrum and the world around them was surprising. This consumption and desire to learn about autism eventually made room for autistics and their families to speak out about their real life in public as members of society just like others. It was Woo who brought this real, equal communication between different groups of people sharing their thoughts and experience freely. Nobody was covering their mouth, forcing them to accept the others, stigmatizing one as a "weirdo" with a mental "illness" and letting others uncritically think so.

All these dramatic changes were rooted in only four letters, LOVE. The phrase, "Love can do anything" may be too classic, but it seems it has become an era where classics have power. The key point of the drama that attracted massive amounts of attention was actually moments of "love" itself.

People easily think that stories capturing one's so-called disorder would show their difficulties, circumstances being ignored by society, or how they struggle day by day, which frustrate themselves and their families. But "Extraordinary Attorney Woo" rather captured why autistics are special by showing what Woo loves and how she is loved by her surroundings, just like other dramas do with non-autistic characters.

What Woo loves in the first place is the law itself and how she serves as a spokeswoman who protects client's benefits and guards justice in court. In this way, drama shows how autistics, whose worlds are significantly concentrated on themselves, consider their job so sincerely compared with others. In the drama are contents about law and related episodes, which let viewers enjoy the drama as "Woo's stories at work," not "unfamiliar stories about autistics."

©Netflix

▲ Woo, at the center of the photo, solves several cases and even takes control of the court.

©Netflix

▲ Whales are what Woo is obsessed with, which is one of the common characteristics of autistics individuals. Woo often comes up with her imaginary whales. Depending on a situation that she struggles with, the species of the imaginary whale is different. For example, she often thinks of a whale when she is surrounded by crowded people, or when a novel idea suddenly pops into her head.

It was thanks to Woo's father, who raised her alone and gave up his dream for her, and Dong Geu-ra-mi, Woo's only friend from school, that Woo was able to challenge her goal of being an attorney, while overcoming all the discrimination and bulling she got from society and school friends. After becoming an attorney, she makes several more friends: a senior attorney who admires her for her ability to solve cases, and a colleague who keeps speaking on her side and helps Woo with being herself by never interfering with Woo's decisions or behaviors.

©Netflix

▲ Woo's dad (Left), Woo's high school friend Dong-geu-ra-mi (Middle), Woo's college friend "sunshine" Choi Su-yeon, and Senior attorney Jeong Myeong-seok, they all really care about Woo but never judge her ability and possibility or yearn her. They rather believe in her extraordinary thoughts and especially pure passion about her work, love and life.

What was most impressive about the drama was Woo's love line with one of her colleagues, Joon-ho. The love between them depicted Woo as a woman, without any tags about autism, as someone who likes to be loved and love back. Woo and Joon-ho even show their struggles of love as typical topic of mundane couple's love fights and irreconcilable differences. It was wonderful for viewers to accept the difference between an autistic person and a non-autistic person, just like a casual personality difference between non-autistics. When they got back together after they broke up, they looked so happy and lovely, the same as other reunited couples.

©Netflix

▲ Woo and her lover Jun-ho, love each other just the way they are, care each other whether they would make each other happier, break up as they misunderstand each other's personality, and get back together with love only. There are no yearn, obligations, nor lies. The way autistics fall in love was no different than non-autistics and the way Woo feels joy, sadness, happiness, or anything was as unique as all the non-autistics.

©ENA

These attempts to depict an autistic person, not overly focusing on autism, which is only one of her characteristics, really captured the hearts and minds of viewers. Showing how she is passionate about her career, how she relates with friends, and loves someone just like other people, allow the audience to picture autistic individuals as people who are worthy to be treated just the way they are, and not so different from others. It is true that the character Woo in the drama is a special case among autistic spectrum people, but hopefully it is enough to make a social space for autistics to relax and be themselves.

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What Is "Being Common"?

By Park Kun-ha
Editorial Consultant

What is "common knowledge?" According to Oxford Languages, it is "something known by most people." If so, do you think you are one of the most common people? What do you think the category of "common knowledge" is? Did you know that England is an island? Can you tell me the year of the World War, Cold War, or the Korean War? Can you name the planets of the solar system in order? Do you know the "official" English language of Korea? To Korean readers, can you write your name in Chinese characters?

Above all, I started to doubt whether I really was a common person. Recently, the controversy over declining literacy, called the "*sim-sim-han* apology debate," has heated up online in Korea. The incident started when a cafe in Seoul, which held a webtoon writer's signing event, used the expression "*sim-sim-han* apology" in an apology statement. The controversy arose from a misunderstanding of the Korean word "*sim-sim-han*" used in the apology. The word "*sim-sim-han*" is polysemic, which means it has multiple meanings. It is usually defined as "boring and uninteresting," but the word used in the apology had another meaning, "expressing the deepest and earnest sympathies." When I first encountered this controversy over literacy, I was shocked and thought, "Is the level of literacy in Korea so low to this degree?"

However, this was not the first time that a similar literacy controversy arose in the online space in Korea. In 2020, as former President Moon Jae-in designated August 17 as a temporary public holiday, a news article titled "Sa-heul holiday from Liberation Day" was published. Some netizens misunderstood the Korean word "*sa-heul*," meaning three days, as four days because "*sa*," meaning four, was contained in the word "*sa-heul*." As a result, "*sa-heul*" even took the first spot among real-time search chart. In addition, the story of a college student who mistook the word "*geum-yo-il*" for "*geum-yo-il*" which means Friday and failed to submit an assignment on time caused an online storm. Thus, I think it may be time to cultivate the ability to understand text beyond simply being able to read text.

As the digital world is changing rapidly, the vocabulary used varies depending on the generation and environment. The proportion of the reading population has also decreased sharply. The old common knowledge came from books and newspapers, but these days common knowledge comes from OTTs such as YouTube or Netflix. In a world where information comes from videos or images, the flow of common knowledge has changed. As the source of information acquisition is now images rather than books and newspapers, the former literary style is becoming unknown. As a result, knowledge and words that were easily encountered in the past are no longer available.

In the first place, what and who can clearly differentiate or draw a line that clearly differentiates common knowledge and knowledge that is not common? Maybe the standards for old and current common knowledge have changed a lot. Yesterday's common knowledge might not be so common today. Then is it obligatory to know old common knowledge today? It is clear that common knowledge varies depending on time, space, and community. Thus, readers, I want you to think about and establish standards of vital knowledge to accumulate without a doubt in your head.

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Vitality in HUFS like Before COVID-19

By Yang Yu-min
Editor-in-chief

In the second semester of 2022, almost all the lectures are turned to face-to-face. Now about one month has passed from the first day of semester, the HUFS Seoul and Global Campus with few students look like a thing of the past. Many students are walking around the campus, having a talk with each other, enjoying many events such as club fair and busking. There is also a booth held to introduce Korean culture to international students. It seems that HUFS restored Vitality like before COVID-19 pandemic. The Argus photographed HUFS, where is full of energy.


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All photos are taken by Yang Yu-min from The Argus

Autumn Breeze

Yang Yu-min

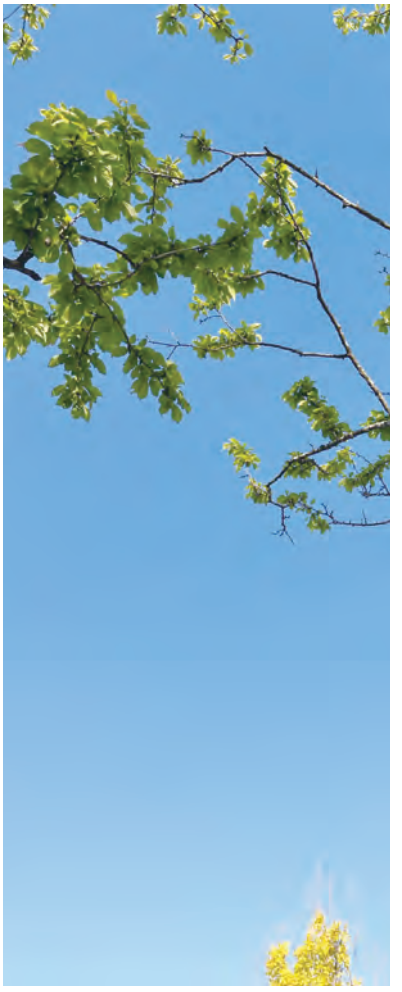
Every year, I blame myself for focusing too much on results. Even if I promise myself not to do that, I repeat the same mistake every time. Blaming myself is like burning myself. From spring, when the semester begins, to summer, the temperature rises, and at the same time, I am burning like a kiln that gradually heats up. I burn all of my soul, and keep burning even more, using the support and encouragement of the people around me as kindling. When I am eventually living with only white ashes left and the heat that has not yet cooled down in my heart, I like the cool autumn breeze brushing against my face. It is as if it is cooling the remaining heat and comforting me. This is what autumn means to me.

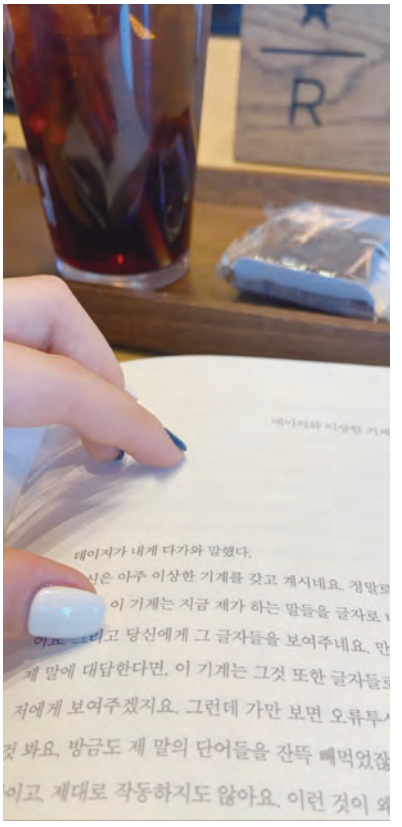
Park Kun-ha

Autumn is a calming season for me. If spring and summer are the seasons that symbolize abundance, autumn seems to be the transition to prepare for winter, the representative season of loss and emptiness. Losing something is not always easy, so you need to prepare your mind to not lose yourself. As part of that arrangement, we protect ourselves by enclosing our bodies in layers of clothing. In the process, we get sick easily. As such, it may be easy to catch a cold due to the nature of the changing of seasons in autumn. I hope readers (and I) do not get sick this fall and we take good care of our bodies and minds.

Nam Gyeong-eun

When it smells stinky on the street, it is a sign that fall has come. Though I have to watch out for those stinky land mines of gingkoes on the road, the beautifully colored leaves on the trees never disappoint me. When the fall wind blows through my hair, which I usually dye dark brown during the fall season, I imagine being a movie star who is waiting for my one and only love, with my eyes welling up a little. Fall is the most inspiring and dynamic season for me when I can act like somebody other than me while I am jumping on the road to avoid stepping on the stinky gingko fruits.





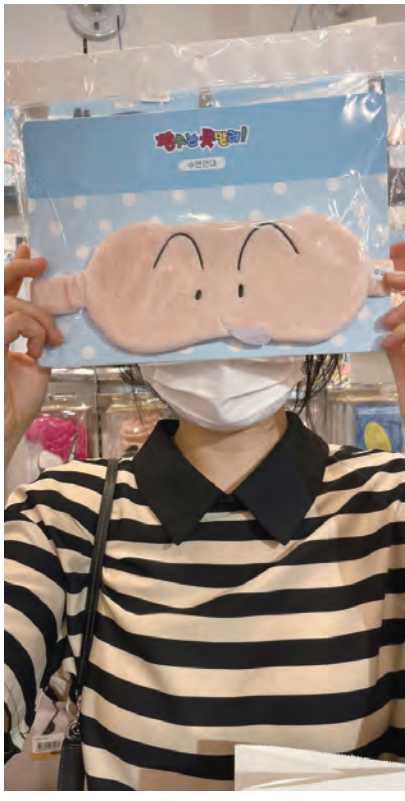
Epilogue

Shin Jun-seo

Fall is the perfect season with the perfect temperature. The perfect temperature and cool wind are just right for outdoor activities. Every year when fall comes, I go outside and play basketball or ride a skateboard. Sometimes I even go to the mountain to see the maples. It seems all my memories related to fall are outdoor activities, and I think this year will be the same. I recommend to readers of The Argus to go outside and feel the cool autumn breeze!

Cho Eun

The red and orange maple leaves are falling, and the new year we greeted at the beginning of the year now has become so familiar. Autumn, the season of reading, is here. Just like the saying goes, "The sky is high and horses get fat," and it is lovely to read outside with a cup of hot coffee and biscuits, taking turns reading the book and observing the scenery. This season, with half of the year having passed, is for me a break and a time to read most happily.



Lee Jue-hyun

Whenever autumn comes, I get close to nature. I try to spend as much time in nature as I can, like going to the mountains or camping. It makes my mind relax after being in high spirits during the summer. I just sit down somewhere quiet and watch things change, preparing for the next step. Fully relishing the moment that can just flow away without noticing it is a must, especially if it's the fall filled with beauty!

Lee Ju-won

When some icy air filtered up my nose, I used to listen to the song "Autumn Morning" by IU. This is because this song makes me feel refreshed rather than chilly. It is obvious that I will sneeze outside due to the cold, but looking outside through the window of my house, the sunlight poured into the room. This song is as warm and cool as autumn weather, so I love it. Maybe readers have a song that they listen to depending on the time of year. Which songs do readers listen to in autumn?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