



February 2024

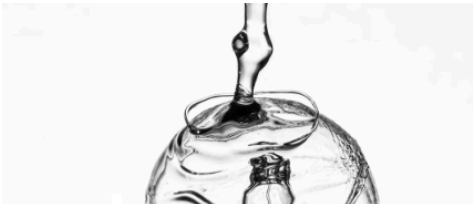
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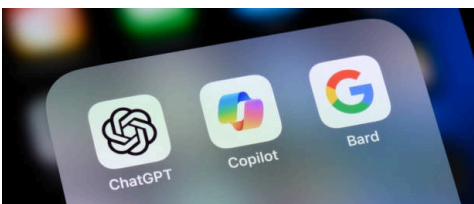
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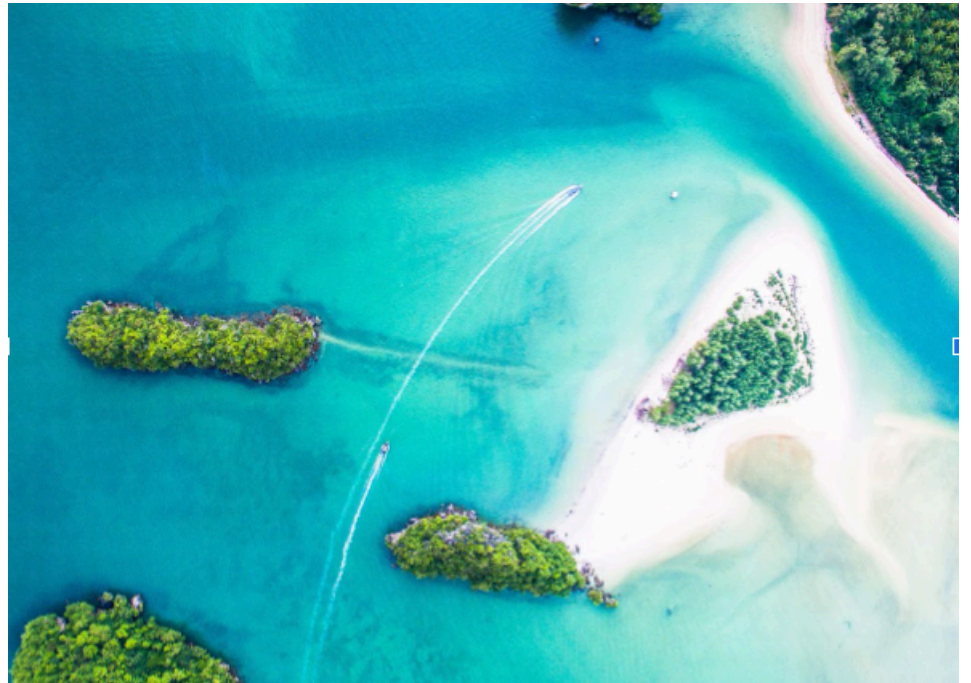
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Favorable Slices of the South China Sea Cake

by Dawon Shin, Northwood High School



When thinking of “conflicts”, common thoughts lay on military disputes. On the contrary, “peace” does not only lay on the military basis, but on a relationship between a country to another country. The mutual respect between one to the other shown by well-negotiated policies supports the positive communication between the nations. There is an ongoing dispute over a specific territory for almost a century; not over a specific land, forest, country, but on sea. Various countries, such as China, Vietnam, Philippines, Malaysia, and Brunei and fighting over the territory for the South China Sea, and tension has been rising for the past few decades.

The South China Sea is very favorable thanks to its position for trade and fishing. Covering over 21% of the global trade, this maritime route has been popular among countries to import and export goods. The natural resources on islands such as the Paracels and Spratly only add to the bitter attraction of these regions to the surrounding countries, as well as the densely packed seas with fish that account for more than half of the world's fishing vessels.

China among these numerous countries has been claiming the largest portion of the sea, labeling it with “nine-dash lines” on maps. They support their claim with their historical accounts of labeling Paracel and Spratly as Chinese nations from the 1940s. However, concerns arise if the map specifically speaks for the lands or the maritime areas of the sea and if they have claimed these islands before this time period. Other countries fight for regions such as Philippines for their geographical proximity, and Malaysia and Brunei from the United Nations Convention on the Law of the Sea's economic exclusion zones.

The United States, of course, is involved in this conflict over a territory across the sea by placing “Freedom of Navigation” operations in these regions. The South China Sea is politically and economically significant even for the U.S., and therefore America has been challenging the territorial claims from China and supporting Southeast Asian partners by sending military planes and ships. This sea route is also very important for the movement of

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naval forces to U.S. bases around Asia. Throughout the last decade, the U.S. military activity and naval presence over this region has been increasing.

China's efforts to claim the islands have also simultaneously been increasing, through the installations of military bases and ports on their artificial islands in the South China Sea. They've also been performing military offenses to surrounding countries. Though the Permanent Court of Arbitration

of The Hague ruled against China's favor, they haven't accepted its authority. Further pollutants of oil and natural gas from China into the sea have sparked even more tensions across the dispute. Other countries responded, such as Japan's support for Southeast Asian countries by selling military equipment, and even banning certain films and performances in Vietnam such as Barbie and Blackpink due to scenes of portrayal of the maps with China's

"nine-dash lines".

The territorial dispute over the South China Sea is increasing over time, but do any nations possess the authority to claim a maritime region in the vast oceans around the globe? If this conflict is settled by separating certain regions for each surrounding country, would this lead to a territorial dispute over other regions on the sea? The questions remain unanswered, but sometimes, it may be the right decision to leave them hanging.

The Effects of Cancel Culture on Mental Health

by Kayla Park, Irvine High School



Cancel culture is a phenomenon that occurs when individuals or organizations face public condemnation and discrimination for behavior or speech that is considered offensive. Being canceled occurs quickly and on a large scale. It is often influenced by social media and can have serious implications, often leaving a significant impact on the psychological well-being of groups. This article explores the many effects of withdrawal culture on mental health and the wider impact it has on the health of society. To understand how being canceled affects mental health, it is essential to focus on the stress experienced by individuals facing public

scrutiny. A fear of dismissal combined with the potential loss of reputation, livelihood, or relationship can lead to anxiety and depression. The constant threat of public judgment may cause a general feeling of discomfort and wariness that affects the person's mind and emotional state. Depression is another major mental illness associated with cultural withdrawal. Being deprived of one's status can lead to feelings of worthlessness and hopelessness. Individuals who suffer from the effects of cultural withdrawal may struggle with a decline in self-worth because of harsh public punishment.

Social isolation is one of the side effects of this phenomenon of canceled culture. Withdrawal generally refers to the removal or "removal" of a person from a relationship, both online and offline. Loss of support and relationships can lead to loneliness and conflict. Loneliness can worsen existing mental health problems or cause depression.

Additionally, the impact of distancing culture extends beyond individual mental illnesses to the entire mental health community. The divisive and polarizing nature of distancing culture can foster a culture of fear and self-censorship. People may hesitate to comment or participate in public discussions for fear of public retribution. This stifling of speech and fear of public censure will have a greater impact on people's mental health.

Although the culture of expulsion stems from a desire for accountability, it is important to realize that the mental impacts on a canceled person or institution are true and significant. Striking the balance between holding individuals accountable while promoting a culture of understanding and empathy is critical to reducing the psychological impact of dismantling the culture. In an age of cultural extinction, creating spaces that allow for growth, learning, and purification while maintaining a sense of responsibility is important for supporting mental health.

Hydrogen: What Is It?

by Eugene Kwon, Samuelli Academy



“Biden awards \$7 billion for clean hydrogen hubs across the country to help replace fossil fuels” (KTLA).

Hydrogen energy is becoming much more prevalent in our current world. 10 million metric tons of hydrogen are already being produced in the U.S. and the National Renewable Energy Laboratory estimates that by 2050, hydrogen production can increase 22 to 41 million metric tons per year. The reason for its popularity, and why President Joe Biden is willing to devote such a large amount of funds to the cause, is due to claims that hydrogen can potentially be humanity’s main source of clean energy.

However, what is hydrogen and how is it an energy source? In this article, the definition and energy process of hydrogen will be explained in depth.

Before diving into hydrogen energy, it is critical to understand the chemical element of hydrogen itself.

Hydrogen is a chemical element that is colorless, odorless, tasteless, non-toxic, and highly flammable. It is represented by the chemical symbol “H”. The reason why hydrogen is such a good source of energy is because it has a high energy content by weight and is extremely flammable, meaning it only takes a small amount of energy to ignite. Hydrogen is also a plentiful resource as it is the lightest and most abundant element in the world.

The process of converting hydrogen into an energy source is much more complex than its definition. Hydrogen does not often exist freely in the environment; instead, it is usually attached to another atom. To create pure hydrogen, the molecular bonds between these atoms must be broken down. There are two main methods for creating pure hydrogen, resulting in either

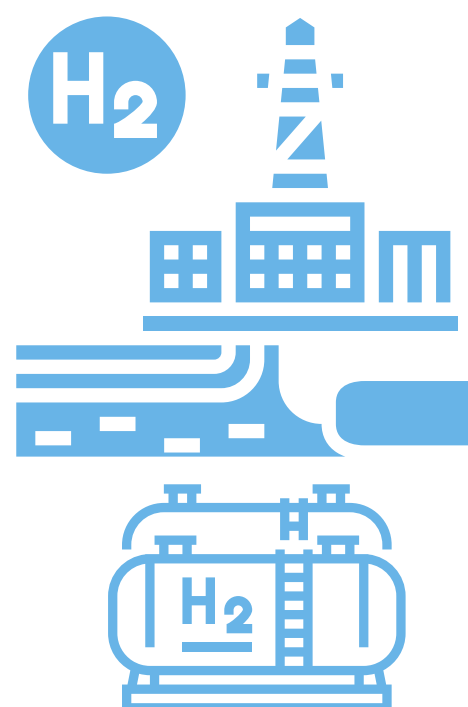
green hydrogen or blue hydrogen? Green hydrogen is produced when an electrolyser is used to split hydrogen from water molecules.

The electrolyser is generally powered by renewable energy, such as solar energy, to avoid emitting any harmful waste.

When hydrogen is produced by the steam methane process, which uses natural gas and hot steam, the result is blue hydrogen. A chemical reaction occurs when hot steam and natural gas mix. This creates hydrogen and carbon monoxide. Afterward, water is added to turn the carbon monoxide into carbon dioxide. The carbon dioxide emissions are then captured and stored underground – meaning that the entire system is carbon neutral.

However, blue hydrogen is very controversial because it may produce methane that is absorbed into the atmosphere. There are other compound methods of producing pure hydrogen that result in products such as gray hydrogen, pink hydrogen, and yellow hydrogen. Ultimately, clean hydrogen will be useful in decarbonizing many industrial aspects of our society.

In next month’s article, the reason behind the lack of use of hydrogen and its efficiency will be explored along with its long-term effects.





The Worldwide Supply Chain

by Neil Hwang, Fairmont School North Tustin Campus



The global supply chain is an extensive and complex web that links companies, manufacturers, suppliers, and customers throughout the world. It includes the movement of capital, information, goods, and services, supporting the expansion of economies all over the world. However, in today's quickly evolving world, this complex network of interconnection faces several difficulties. This piece delves into the intricacies of the worldwide supply chain, the variables impacting its functioning, and the tactics utilized to surmount the corresponding obstacles.

The series of procedures involved in the manufacture, delivery, and distribution of goods and services on a worldwide basis is referred to as the global supply chain. It covers every step of the process – obtaining raw materials, production, shipping, warehousing, and distribution – culminating with a consumer receiving their product. The parties involved consist of suppliers, manufacturers, distributors, retailers, and customers, each of which is essential to the system's proper operation. Recently, this complicated process has been

undergoing drastic changes caused by new global developments.

The emergence of globalization has fundamentally altered the structure of international supply chains. Businesses can now outsource and obtain less expensive labor and resources. They have an expanded market reach as well as improved production and distribution systems. However, as supply networks become more interconnected and complex, their susceptibility to disturbances increases.

The global supply chain has also transformed due to the swift progress in technology. Technologies like robotics, blockchain, artificial intelligence (AI), and the Internet of Things (IoT) have increased efficiency, transparency, and traceability.

The intricate and dynamic global supply network drives both international trade and economic expansion. Although it has a plethora of benefits, it also faces a host of difficulties such as cybersecurity threats, inventory management, of transparency, and disruptions.

Businesses may manage the complexity of the global supply chain and develop resilience in a quickly changing world by using risk diversification, technology, teamwork, and sustainable practices.

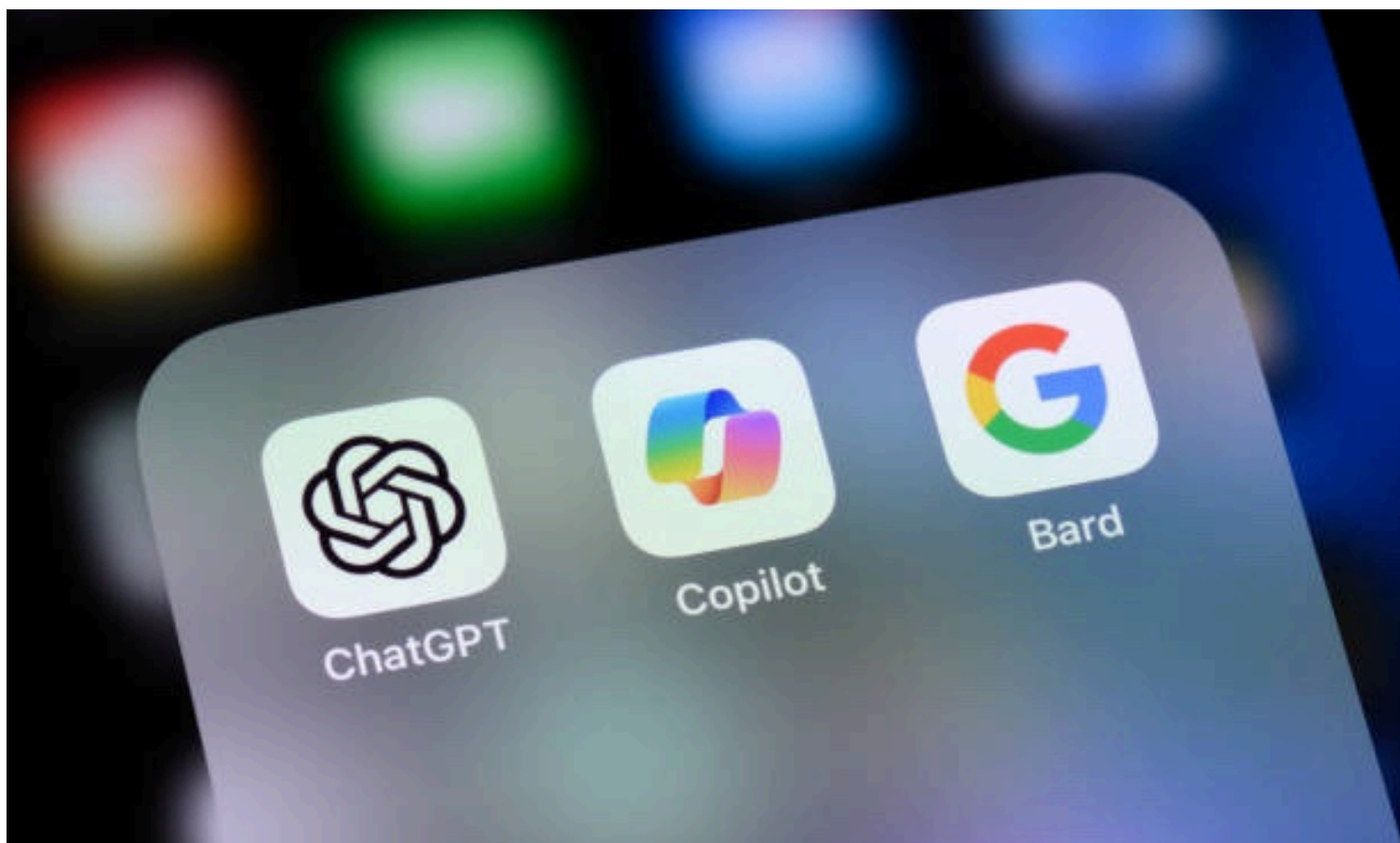
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Elon Musk's Legal Action: Name Establishment about History of generative AI

by Ian Minu Choi, St. Paul Preparatory Seoul



Elon Musk, the chief of Tesla and SpaceX, has recently taken legal action against OpenAI, the creator of the AI tool ChatGPT. He played a central role in early development of the company, working as a leader in the company alongside Altman. His vision for the development of AI was active in shaping OpenAI's direction, to the non profitable, during its formative years.

Even though he was eager to develop the AI, he left the company in early 2018 due to the disagreements over the company's direction, but still, he continued to support money to the nonprofit part, believing that it will help promote safety and benefits to the society.

One of the key agreements that Musk made with OpenAI was to keep the company strictly nonprofit and to ensure that the company should remain transparent, which means that the codes being made should be accessible. This commitment was intended to foster a collaborative environment that could be helpful for the development of humanity

that could further solve global problems. He thought that encouraging the development of AI would satisfy the public interest.

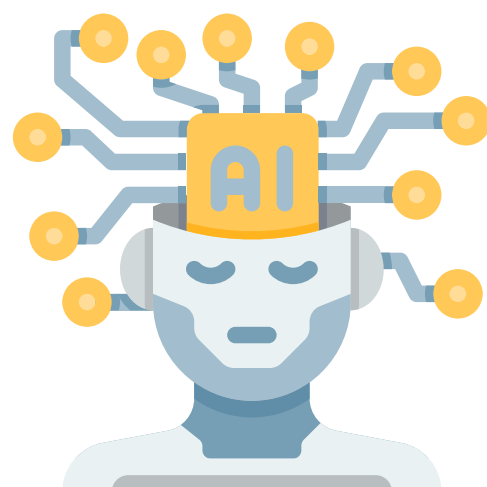
However, tensions arose when OpenAI decided to create a for-profit branch that began to move most of its workforce and resources to this new venture. This contradicts the principles of transparency and public benefit that Musk had advocated for, fracturing the relationship between them.

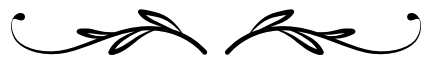
Furthermore, Musk viewed OpenAI having a closer relationship with Microsoft which brought suspicion. The partnership with Microsoft raised concerns about the future direction of OpenAI and its breaking of its commitment to its original nonprofit ideals.

In response, Musk took legal action against OpenAI, alleging the deviation of original agreements between them. His purpose of this lawsuit is to hold OpenAI accountable for its actions

and ensure that the organization sticks to its founding principles.

The outcome of the legal action remains uncertain, but it underscores the challenges and concerns related to the development of AI technology. As AI continues to advance rapidly, it is important for the government or public to be aware of it and navigate these issues carefully in a way that can benefit humanity.





Spanish Flu: Pandemic Creator

by Yuha Lee, St. Paul Preparatory Seoul



The Spanish Flu pandemic, which happened throughout the years 1918 to 1920, represents a pivotal moment in history. This pandemic was caused by an H1N1 influenza A virus, commonly known as the Spanish Flu, which, unlike other viruses of the time, had a unique combination of genes that had never been seen in humans or animals before. Starting during the first World War, the disease is believed to have first spread in military camps in Europe and the US, where unsanitary conditions inevitably provided open access for the virus to reach.

Mainly facilitated by the group movement of troops during World War I, the Spanish Flu pandemic was rapid and unprecedented. With soldiers traveling across the world, viruses spread turning a local virus into a global pandemic. The Spanish flu was an unusual disease with high mortality rates. This affected the life patterns of young individuals and forced nations to restructure communities.

The Spanish flu stands as a significant turning point in global history for several reasons. Firstly, it marked a new era in the understanding and response to infectious diseases. Prior to this

pandemic, public health measures were relatively primitive, and the understanding of viral infections was limited. However, with the outbreak of the Spanish flu, people shifted focus to the advancement of government-organized protocols. Governments and medical communities around the world recognized the necessity for more advanced public health systems and international cooperation in monitoring disease outbreaks.

The Spanish Flu also created a devastating impact on the global economy and social structures. Its impact was not only immediate but the economic repercussions, including labor force disruptions, and changes in industry and trade had a long-term effect on the economic and social structure

across the world. According to a 2020 study, among the 40 countries that accounted for 92 percent of the world's population in 1918, a typical country saw its reduced real per capita GDP by 6 percent and private consumption by 8 percent due to the pandemic. This is comparable to the economic decline seen in the Great Recession of 2008–2009.

Moreover, due to the high mortality rate of the pandemic, workplaces had to adjust to the shortage in labor forces. This eventually led to opportunities for underrepresented groups such as women allowing them to take an active part in the economy. Furthermore, the pandemic also allowed for other advancements such as in technology and workplace regulations.



Alternative Fuel Source: Way to Save the Earth

by Hyunsoo Kim, St. Paul Preparatory Seoul



The excessive use of fossil fuels has led to a 1.5-degree Celsius increase, a 90% rise in CO2 emissions, and global biodiversity decline, threatening our planet's future. While electric cars were initially considered as a green solution to combat climate change, their environmental advantages still need to be determined. The manufacturing process, which contributes to half of the greenhouse gases in an electric car's lifecycle, involves mining rare earth elements (REEs) such as nickel, lithium, graphite, and cobalt. This extraction not only releases toxic metals and acids but also emits greenhouse gases, questioning the green aspect of electric cars.

Electric cars' reliance on electricity, mostly from fossil fuels in many countries, further challenges their "zero-emission" label. Under the current electricity mix, electric cars may emit more greenhouse gases than conventional vehicles due to their low fuel efficiency and dependency on fossil fuel-generated electricity. Additionally, the disposal of lithium-ion batteries, composed of REEs, also poses environmental

threats due to unregulated recycling practices and illegal disposal.

An alternative for such a paradox can be hydrogen cars, specifically fuel cell electric vehicles (FCEVs). Unlike electric cars, FCEVs do not require REEs in their manufacturing process or batteries, leading to relatively reduced pollution. Moreover, hydrogen for FCEVs can be obtained from garbage, biomass, natural gas, and renewable energy, ensuring a cleaner and more sustainable energy production process. FCEVs produce only warm air and vapors as byproducts, which are environmentally friendly

compared to the CO2 and toxins emitted by electric cars.

Furthermore, refueling FCEVs is convenient and quicker than conventional electric and gasoline vehicles, taking only five minutes on average. Thus, hydrogen cars, with their cost-effectiveness and superior environmental cleanliness, present a compelling alternative to electric vehicles to achieve carbon neutrality and prevent global warming.



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