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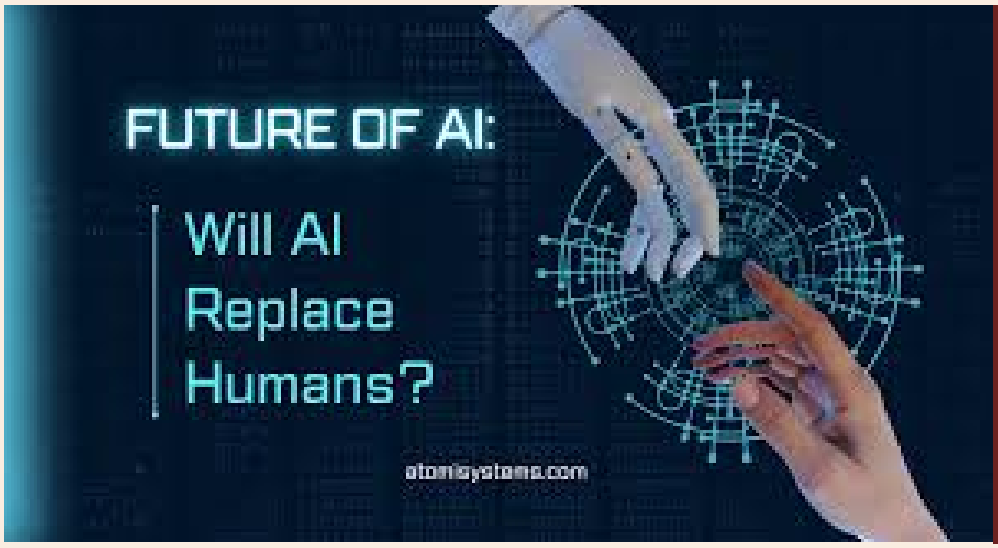
THE YOUTH VOICE

NEWS FOR THE YOUTH BY THE YOUTH



The Youth Voice is a monthly newsletter designed for middle and high school students.

Created by a group of enthusiastic school students with a mission to make the world a peaceful and informed place

WHAT'S MAKING NEWS?

Can AI say " I am not sure"

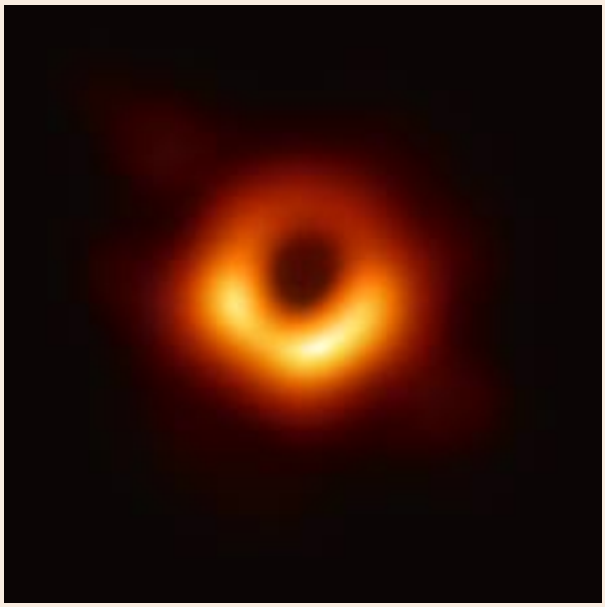
Themis AI, an MIT spinout, is addressing AI hallucinations by developing systems that can admit uncertainty, a critical step for safe integration into high-stakes fields like medicine. Their Capsa technology trains AI to recognize when it's confused or lacks solid data, flagging unreliable outputs instead of generating potentially dangerous fabrications. This approach, demonstrated in drug discovery by 2021, aims to make AI more trustworthy by enabling it to say, "I'm not sure."

Mystery Radio Waves

Scientists are puzzled by the discovery of a mysterious space object that emits powerful bursts of X-ray and radio waves every 44 minutes. Unlike any known pulsar or magnetar, this object exhibits an unusually slow and regular signal, suggesting it could be part of a previously unknown class of celestial bodies. Detected by multiple telescopes, the signals originate from deep within our galaxy, and researchers are working to determine whether it's a unique type of neutron star or something entirely new to astrophysics

BLACK HOLES: WHERE PHYSICS FAILS AND WONDERS BEGIN

Written by Author: Ayaan Jain



Black holes sound like something straight out of science fiction—and in a way, they are. For a long time, they were just strange predictions from Einstein's equations, but today we know they're real. They're some of the most mysterious and fascinating objects in the universe. Imagine something so powerful that not even light can escape it. That's a black hole. It forms when a massive star reaches the end of its life, collapses in on itself, and leaves behind a region of space where gravity takes over everything. At the heart of every black hole is a point called a singularity—where all the star's mass gets crushed into an infinitely small space. Around this is the event horizon, which you can think of as the edge or boundary of the black hole. Once anything crosses this invisible line—whether it's a spaceship, a planet, or even light—it's gone for good. That's why it's called the "point of no return." Interestingly, this boundary isn't a solid surface, just a region where gravity becomes so strong that escape is impossible.

Things get really weird near a black hole. Thanks to Einstein's theory of general relativity, we know that time actually slows down the closer you get to one. If you were falling into a black hole, you wouldn't feel much at first—but to someone watching from a safe distance, it would look like you were slowing down, almost freezing, as you got closer to the event horizon. That's because time and space get stretched and warped by the black hole's massive gravity.And here's where it gets even stranger: black holes aren't completely black. In the 1970s, physicist Stephen Hawking showed that black holes can actually give off a tiny amount of heat, now known as Hawking radiation. Over a ridiculously long time, this radiation could cause a black hole to slowly shrink and eventually vanish. But if a black hole disappears, what happens to everything it swallows? That question led to the "information paradox," a huge puzzle in modern physics because, according to quantum theory, information can't just vanish from the universe.

Even though we can't see black holes directly, scientists have found ways to detect them. When gas and dust spiral into a black hole, they heat up and glow brightly in X-rays. More recently, instruments like LIGO have picked up ripples in space—called gravitational waves—that happen when black holes collide. And in 2019, we got our first actual image of a black hole's silhouette, thanks to the Event Horizon Telescope. That blurry orange ring made headlines around the world—and rightly so. It was the first real glimpse at something we once thought we'd never see.

Black holes push the limits of what we understand about the universe. They combine gravity, space, time, and quantum physics in ways that still puzzle scientists. But that's what makes them so exciting. As we learn more, black holes might just help us unlock some of the deepest secrets of reality itself.

Adult Mental Health - How childhood experiences shape it ?

Written by Author: Vedika Jain

Childhood memories play a significant role in shaping who we are and it determines our personality in adulthood. From the way we handle stress to how we build relationships, the environment we grow up in influences our mental health in profound ways. Early experiences—both positive and negative—can leave lasting emotional and psychological imprints, affecting our self-esteem, coping mechanisms, and overall well-being. During our childhood the brain is developing rapidly and many changes are taking place in us. At this time, it is crucial for us to take care of our mental health and well-being. The brain's capacity to learn can be disrupted due to any negative emotion like trauma or neglect. It can leave a deep imprint on your brain that can have disastrous effects if not controlled. Around us, we see many children who are commonly facing Adverse Childhood Experiences (ACEs), including abuse, neglect, and household dysfunction. Such experiences can ultimately lead to long-term mental health challenges such as depression, anxiety, and PTSD. On the other hand, a supportive and nurturing childhood fosters resilience, emotional intelligence, and a strong sense of self-worth.

It is commonly recorded that children who grow up in environments lacking warmth, validation, or emotional support may struggle with low self-esteem and emotional regulation. As adults, they may find it difficult to express emotions or form secure attachments in relationships. Trauma and abuse can also disrupt or hamper your personalityPhysical, emotional, or sexual abuse can lead to deep psychological scars. Survivors often develop coping mechanisms such as dissociation or avoidance, which can contribute to mental health disorders like anxiety, depression, or PTSD. Discipline and routines are crucial but sometimes excessive control or overprotection can hinder a child's ability to develop independence. Adults who were overly sheltered may struggle with decision-making, self-confidence, or fear of failure. On the other hand, positive outlooks and a warm household environment helps children develop resilience, emotional intelligence, and strong coping mechanisms. Encouragement, open communication, and emotional security build a foundation for healthy relationships and self-worth. This does not mean that such scars cannot be healed. Many people are able to heal by adopting small changes to their lifestyle like– professional guidance, journaling, mindfulness,and meditation can help overcome your childhood traumas and lead a healthy life. In conclusion, childhood experiences lay the foundation for adult mental health, influencing how we perceive ourselves, handle emotions, and build relationships. While past experiences can be challenging to overcome, healing is possible through self-awareness, therapy, and supportive relationships. By addressing childhood wounds, individuals can break negative patterns and create a healthier, more fulfilling life.

AI Ethics: A Teen's Guide to Fair and Friendly Tech

Written by Author: Aania Sayida Mir

What's AI Ethics All About?

Ever asked Alexa for help or used an app that recognizes faces? That's AI at work! AI ethics is about making sure these smart technologies are fair, safe, and respectful. It's about protecting your rights (like privacy) and ensuring AI treats everyone equally. Experts say it's tricky to set rules for kids, so it's up to all of us—teens, parents, and teachers—to shape AI for good.

Did You Know? AI is used to filter bad content online, but we need better safeguards to stop biased or unsafe stuff from sneaking through.

Key Ideas in AI Ethics

Fairness: AI shouldn't treat people differently based on race, gender, or background.

Transparency: You should understand how AI makes decisions—like how it grades your homework.

Privacy: AI uses your data (like photos or schoolwork). It should keep your info safe and not share it without permission.

Accountability: If AI messes up, humans need to fix it. There should be clear rules about who's responsible.

Teens worldwide are calling for strong data protections in schools—AI ethics is all about real people like you!

Why Fairness and Safety Matter

AI can be cool, but it's not perfect. Studies show some AI tools have bias. For example, chatbots often link women to "home" and "family" tasks four times more than men, while men get tied to "business" and "salary." Yikes!

Educators warn that AI can amplify biases, like favoring one group of students over another. A global youth survey found teens want AI that doesn't discriminate. By focusing on fairness, we can make AI trustworthy and avoid hurt feelings or unfairness.

New Rules Around the World

Governments are stepping up! In 2024, Europe passed the EU AI Act, the world's first major AI law. It requires "high-risk" AI (like in schools or hospitals) to be tested for safety. New York's SAFE for Kids law bans addictive AI feeds for under-18s without parental consent. Globally, 2021 AI ethics guidelines push for fairness and human rights in every country.

AI in Your Life

AI's everywhere—schools, apps, even chatbots like ChatGPT! But rules are patchy. Some teachers ban AI, while others let you use it. A Philadelphia teacher went from fearing AI (thanks, sci-fi movies!) to using it to teach about biases and privacy. Cool, right?

Experts warn that unequal access to AI could create an "AI divide." Schools are now making guidelines to ensure AI is used fairly and you give credit to AI-generated ideas.

What You Can Do

You've got power! Here's how to stay smart with AI:

Ask Questions: If an AI answer seems off, ask an adult why.

Protect Your Info: Don't share personal details (like your address) with AI unless you trust it.

Use AI Responsibly: Let AI help with ideas, but always use your own words for homework.

Speak Up: If AI does something unfair or creepy, tell an adult. Your voice matters!

Teens globally say ethical AI is their #1 concern. You can help shape a future where AI makes life better for everyone!

Total Revolution: J.P. Narayan's 1975 Movement That Rocked the Pillars of Indian Democracy

Written by Author: Shourya Singh

India was treated to a political as well as moral renaissance of a sort previously unknown in independent India's history during the mid-1970s. At the centre of the movement was Jayaprakash Narayan, a name known to millions as Loknayak, the "People's Leader."His 1975 Total Revolution was not merely a response to political crisis—it was a farsighted master blueprint for social change.It eventually stunned the ruling elite into imposing industrial order through the Emergency, a moment still viewed by many as the largest threat to Indian democracy.

J.P. Narayan had been an old Congress Party politician and a key freedom fighter leader in India. But more and more, he kept himself aloof from politics, committing his life to Gandhian and socialist ideologies. By the early 1970s, JP was disenchanted with the development of the Indian state—corrupt, economically stagnant, with rising unemployment and authoritarianism under the leadership of Prime Minister Indira Gandhi. Total Revolution (Sampoorna Kranti) was an idea born in such a situation.

JP's idea of democracy was not just elections and governance; democracy meant justice, equality, and the participation of common people. JP could envision a revolutionary but non-violent transformation in Indian society in seven domains of highest priority: political, social, economic, cultural, educational, moral, and spiritual. He aimed to rouse people's conscience and create a new India based on participatory democracy and moral leadership. Unlike conventional political revolutions, where the target was governments, JP's revolution was more about individual change, social-level action, and rekindling grass-roots democracy.

The movement gained strength in Bihar, where JP led student agitations against goondaism and misgovernance. Starting as a state-level protest, it grew into a national movement. Citizens of all the states, but particularly the youth, reacted with never-before-seen enthusiasm.

JP's speeches evoked enormous crowds and his appeal for government accountability found a chord in millions of people. He appealed for public civil disobedience by nonviolent means and urged the police and army to refuse unconstitutional orders—something that unnerved the ruling class.

Faced with mounting revolt and a court decision finding her guilty of election rigging, Indira Gandhi declared a state of Emergency on June 25, 1975. Civil liberties suspended, press freedom curtailed, and political opponents—such as JP—jailed. The nadir of Indian democracy, but JP's ideals had already roused the country. His vision continued to inspire revolt, even in prison.

When Emergency expired in 1977, there were nationwide polls, and the Congress Party lost in a historic election upset. A non-Congress government was sworn in for the first time after independence—the general view being that this marked the culmination of JP's movement and popular rejection of authoritarianism. Though Jayaprakash Narayan never took office, his Total Revolution vision left its stamp forever on India. It was a call to action that democracy has to be experienced day by day—and not just voted into power. His legacy is a tribute to the power of moral leadership, citizen activism, and the belief that one voice, if grounded in truth, can reform a country.

References:

Barman, P., 2020. a Journey From Socialism To Total Revolution: an Evaluative Study of Loknayak Jayprakash Narayan. International Journal of Social Science and Economic Research, 5(03), pp.806-815.

Narain, J.P., 1975. Total Revolution. (No Title)

The barbaric Plague

Written by Author: Pranit Verma

Just like the Novel Coronavirus or SARS, other viruses have created havoc in the past. The most powerful and deadly one of them was the Bubonic plague. The Bubonic plague is also known as the Black Death and the Great Mortality. It existed between 1346 and 1352. The plague spread like wildfire across Europe, Asia, North Africa, and Arabia, killing an estimated 30 to 50 million people, which was perhaps half of the world's population at that time. Even now it exists, but the cases are very rare, and let's hope it stays that way. The plague arrived in Europe in October 1347, when 12 ships docked at the Sicilian port of Messina. People went to greet the sailors, but when they got onboard, they were petrified. The boat was full of dead sailors with black spots on them, and those alive were very ill. It was the entry of the Black Death. It happened because of the fleas and sick rodents that were on the ship. They were infected with bacteria called Yersinia pestis. The symptoms were headaches, chills, illness, and swollen black spots. After it reached most parts of the world, people were dying in millions. The plague doctors wore masks that looked like the beak of a bird. It was filled with herbs so that the virus, when airborne, could not get in. They were always trying to find a cure, but failed. The doctors had a stick with a metal tip to touch the patients to see if they were alive or dead because the medical field then was in a bad shape. They did not have Intensive Care Units (ICUs) or life support, so they could do nothing to save the sick.

Yersinia Pestis

All their medicines were mainly employed by superstitions and false beliefs, with no actual understanding of medical sciences or pharmacology. Some of the so-called "cures" that were attempted included one in which one simply whipped oneself, believing that the plague was God's way of punishment and that the patient should whip themselves for their wrong deeds, so that God doesn't have to carry out its punishment. Another cure involved the patient bathing in rosewater and vinegar. It doesn't take a doctor to understand the futility of these forms of "treatment". Moreover, the doctors' suits and masks did not protect them from fleas that got inside when they took the suits off. Hence, many plague doctors also perished the same way their patients did.After some observation, doctors deduced that people would fall victim to this plague if they moved around the sick. It was hence believed that this was due to the air the sick exhaled. Then they came to the conclusion that the illness was airborne. They called the air and fumes coming from any part of the black death patients "bad air" and told people to stay away from it. This specific air theory was called the Miasma Theory.

There were, however, a few blessed people who were unaffected. They lived on isolated islands and followed proper hygiene. The people who survived in the afflicted areas were able to do so only because of their strong immunity.

We should be thankful that now the medical science has evolved and advanced multi-fold. We are in safer hands. The best practice, as you all may know, remains to wash hands regularly, maintain regular hygiene, follow all safety protocols advised, and build our immunity to fight off the plagues and pestilences to come.

References:

https://www.who.int/emergencies/disease-outbreak-news/item/plague---madagascar
https://www.creative-biolabs.com/vaccine/yersinia-pestis-vaccines.htm

1. Who invented the light bulb?
A) Isaac Newton
B) Thomas Edison
C) Albert Einstein
D) Nikola Tesla

2. How many faces does an octahedron have?
A) 6
B) 8
C) 10
D) 12

3. Which of the following is the most commonly used semiconductor material?
A) Copper
B) Silicon
C) Aluminum
D) Iron

4. Who is the current President of Ukraine?
A) Volodymyr Zelenskyy
B) Petro Poroshenko
C) Viktor Yanukovych
D) Yulia Tymoshenko

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FUN FACTS

🧮 A googol is a HUGE number – It's a 1 followed by 100 zeros!

Bees use math! – They build honeycombs in perfect hexagons, which use the least wax for the most space.Smart little engineers!

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