



Office of Research
Innovation and Commercialization

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Futuristic Outlook



A Product of Office of Research Innovation and
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Message from Co-Founder, Director-General, and Head ORIC – UMT



We live in the Modern age, where we do all over work with the help of technology. We know technology by the name “technological know-how”. Discover the latest science and technology news and videos on breakthroughs shaping tomorrow's world with Futurism. The innovation of science has a long history producing many important figures and many developments in the field. Moreover, it made communication easier for us. Humans have cleaned up and created some fantastic and sometimes orthodox inventions.

For a long time, organizations have been experiencing various kinds of problems, resulting in their management exploring various changes to introduce into their mode of operation. Innovation and technology cycles have benefited organizations as they have assisted many organizations in perceiving the changes. Innovation refers to the incorporation of new functionalities into existing products and processes. As a result, an organization settles down to attain productivity.

So, every researcher and faculty member should be up-to-date about innovation in their respective field; that’s why ORIC-UMT introduce the Futuristic Outlook for the UMT family to commensalism with the Innovative world.

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A - School of Engineering & School of System and Technology

1: Tesla Delivering First Semi Truck to Pepsi in December, Elon Musk Says

Tesla CEO Elon Musk has announced that the company is finally delivering its first all-electric Semi truck this winter.

And while Musk has made plenty of promises in the past without making good on them, this time he's willing to name a customer — which is none other than PepsiCo.

"Excited to announce start of production of Tesla Semi Truck with deliveries to Pepsi on Dec 1st!" Musk wrote on Twitter. "500 mile range and super fun to drive."

It's been a long time coming. The trucks were first unveiled five long years ago, and were originally meant to hit the road in 2019. If Tesla actually manages to get them on the road — still an "if," to be clear — they could be poised to change the trucking industry forever.

In August, Musk promised that the Semi Truck will start shipping "this year," while the company's long-awaited pickup truck, the Cybertruck, will go on sale "next year."

The Semi, if it makes good on all of Tesla's hype, could be a game changer. Its advertised range on a single charge is between 300 and 500 miles, allowing it to take on significant short to medium range transportation duty.

The \$180,000 truck can also accelerate from 0 to 60 mph in just five seconds, a blistering time for a big rig. A subsidy program could bring the truck's price down by up to \$40,000 as well, Reuters reports.

A number of other major corporations have also reportedly considered the Semi Truck for delivering their goods, including Doritos and Mountain Dew.

It'll be interesting to watch Tesla's Semi Trucks hitting public streets — particularly when it comes to the company's controversial Autopilot driver assistance software, which will come standard with the truck.



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2: United Airlines Says It'll Use Electric Planes for Flights Under 200 Miles

United Airlines, one of the largest airlines in the world, has shared preliminary plans to get an electric fleet of planes airborne at CNBC's ESG Impact Virtual Conference on Thursday.

The aviation giant is optimistic about the endeavor and is projecting it could have electric powered commercial flights by the tail end of this decade, potentially laying the groundwork for a much more environmentally friendly future for air travel.

"Initially we want to fly on routes that are 200 miles or less," Mike Leskinen, president of United Airlines Ventures, told CNBC during the video conference. "But as that energy density increases, that same aircraft will have a range of 250 miles, 300 miles, which is going to give us a lot more utility here connecting our hubs."

In other words, the battery-powered planes will get a chance to prove themselves in regional, short-haul flights, according to Leskinen.

Electric Partnership

United set their plans in motion last year, purchasing 100 battery-powered planes that can seat 19 passengers from the Swedish startup Heart Aerospace.

Its founder Anders Forslund, who also attended the conference, said that the planes will be able to recharge in "under half an hour," which is about on par with industry standards.

The airplane won't be taking off any time soon, however, as it still requires certification, but Forslund predicts they'll get approval by 2028.

The Green Game

For the long-haul flights, United has already announced plans to use sustainable fuel in its efforts to be carbon neutral by 2050.

In December in 2021, the airline became the first in the world to complete a passenger flight using 100 percent sustainable aviation fuel. It was an impressive stunt, but critics were skeptical about the feasibility of scaling up the technology.

United have invested in electric air taxis as well, ordering 200 vertical take-off and landing capable craft from Eve Air Mobility last month.



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It's clear that the airline is willing to throw money at the sustainability problem in order to be ostensibly green, along with other heavyweights in the space like JetBlue and Virgin.

If the industry's efforts pan out, it could be a game changer. But approaching carbon neutral status will be a difficult challenge to surmount.



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3: Google Creates Ai That Turns Text into 3d Objects

DreamFusion is an evolution of Dream Fields, a text-to-3D-image generator revealed by Google back in 2021. And like Dream Fields, DreamFusion creates its 3D images by combining a Neural Radiance Field (NeRF) — or a neural network that can create synthetic 3D scenes using partial 2D datasets — with a pre-trained text-to-image prompt model.

The twist? Unlike Dream Fields, which utilized OpenAI's CLIP technology as that latter pre-trained model, DreamFusion now uses its own: Imagen, Google's DALL-E 2 competitor.

So, basically, Google booted Elon Musk's OpenAI tech and figured out how to use its own. Keeping things in-house — smart.

"Happy to announce DreamFusion, our new method for Text-to-3D!" Ben Poole, a research scientist at Google Brain and co-author of the proof-of-concept paper, wrote on Twitter. "We optimize a NeRF from scratch using a pre-trained text-to-image diffusion model. No 3D data needed!"

While the DreamFusion models aren't totally realistic, they're admittedly pretty impressive — as its creators explain the paper, the AI-generated forms that are shown off on its website are "coherent, with high-quality normals, surface geometry and depth, and are relightable with a Lambertian shading model."

In other words, while they might not be as convincingly realistic as some of those photorealistic DALL-E 2 images (yet), they have all of the right elements. The proportions are right, the depth makes sense, and so on. And not to shade OpenAI, but this next version of the tech is certainly a visual improvement from its first iteration.

It's unclear when DreamFusion — or whatever comes next — will be available to the public, though we can definitely see a number of applications already. Just think of the value to indie game developers alone! And according to Twitter, it's already been used to 3D-print a ghost eating a hamburger, so cheers to that.



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4: Watching Elon Musk's Robot Back to Back with Boston Dynamics Is... Something

At Tesla's artificial intelligence event on Friday, the company showed off two early prototypes of its Optimus humanoid robot, a walking automaton meant to take care of the "boring" tasks in life.

Perhaps as expected, what the company unveiled on stage was far from impressive — especially considering just how far ahead the competition is.

The first robot, a "rough development" model dubbed Bumble C, awkwardly shuffled onto the stage with its wires and electronics exposed.

Tesla CEO Elon Musk also unveiled a next-generation version, which had to be carried onstage because, he said, "we just didn't want it to fall on its face."

In short, the demos were of a very early-stage product, especially compared to its competitors that have been working on humanoid robotics for much longer.

Take Boston Dynamics' Atlas for instance, a robot that can bust impressive dance moves, do parkour, and even backflip off a platform.

<https://www.youtube.com/watch?v=tF4DML7FIWk&t=1s>

Sorry, folks — but after watching that robotic wizardry, take a gander at Tesla's attempt. It'd be an impressive student project, but for now, it looks more like something you'd buy on Alibaba than a serious research project.

<https://www.youtube.com/watch?v=7yhQiy4phjc>

Sure, Tesla has come a long way in a relatively brief period of time — "Elon Musk speedruns robotics 101," The Verge wrote — but that doesn't make the car company's flashy event last week particularly impressive.

Critics were quick to point out Optimus' shortcomings. AI researcher Filip Piekiewicz called the demo "next level cringeworthy. Complete and utter scam."

"None of this is cutting edge," robotics expert Cynthia Yeung tweeted. "Hire some PhDs and go to some robotics conferences Tesla."

Others stopped short of ridiculing the company.



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"Am I blown away? No," Christian Hubicki, robotics professor at Florida State University wrote. "Am I laughing? No."

Hubicki argued that Tesla is likely relying on a decades old walking method in robotics, forcing the robot to slowly shift its balance from one foot to the next in a semi-crouched position.

"They are very similar in concept to Honda's Asimo robots, the development of which is now abandoned," Will Jackson, CEO of Engineered Arts, the company behind that robot with eerily human facial expressions, told The Verge. "The overall design is heavily built, clumsy and power inefficient — the hands are very basic, the only redeeming feature is a clutch mechanism in the finger actuation."

Those kinds of criticisms echo sentiments from experts after Musk's brain computer interface startup Neuralink showed off a monkey playing a game of ping pong with its mind — a demonstration that experts called "outdated" and "not exactly new."

Musk's penchant for hyperbole doesn't exactly help. As he's done many times before, he offered up some hard-to-believe numbers on Friday.

According to the billionaire, a production-ready Optimus will go on sale for "much less than a car — much less than \$20,000" and "within three years, probably not more than five years."

Sure, Tesla has come some way since having a dancer in a spandex suit masquerade as a humanoid robot on stage just over a year ago.

But given Musk's abysmal track record when it comes to his predictions — he originally promised that Tesla would be selling the robot by next year — we'll believe it when we see it.



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5: China Shows Off Drone That Drops Robodog with Huge Gun Anywhere

A video has gone viral of a large drone dropping off a gun-wielding robot dog, a terrifying vision of what the future of warfare and policing could soon look like.

The footage shows a sizable octocopter drone dropping off its armed payload on a rooftop in an urban area. The robodog then springs to life and stretches its legs.

The robot appears to be carrying a modified, semiautomatic assault rifle, which has been the service rifle for the People's Liberation Army and paramilitary agencies in China since 1995.

The clip was shared by an account called Kestrel Defense Blood-Wing on Chinese social media. According to a rough Google translation of the account's description of the video, "war dogs" that "descend from the sky" can be "directly inserted into the weak links behind the enemy to carry out surprise attacks," be delivered "to the top of enemy buildings," or provide fire suppression.

Needless to say, it's a controversial use of the technology. Just this week, Boston Dynamics, maker of the popular Spot Mini robodog, which bears a striking resemblance to the robot in the video, announced a pledge to never weaponize any of its robots.

That hasn't stopped others from arming quadruped robots. Several US defense contractors have shown off prototypes of four-legged robots carrying large weapons.

And last year, a Russian tinkerer strapped a submachine gun to a Chinese robodog, firing off rounds after rounds in an alarming video.

It's unclear if we'll ever see robot dogs being air dropped from the sky via drones — but, as the video demonstrates, the technology definitely already exists.



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6: New European Political Party Is Led by an Artificial Intelligence

Asker Staunæs, the creator of the party and an artist-researcher at the nonprofit art and tech organization Mind Future, told Motherboard that Leader Lars is specifically trained on policies formed by post-1970 Danish fringe parties — and thus, he says, the party is designed to collectively represent the roughly 20 percent of present-day Danish voters whose parties remain unrepresented in parliament.

"We're representing the data of all fringe parties, so it's all of the parties who are trying to get elected into parliament but don't have a seat," Staunæs told the site. "So it's a person who has formed a political vision of their own that they would like to realize, but they usually don't have the money or resources to do so."

Leader Lars is, in a way, an inherent populist, as its "policies" — which according to Motherboard include universal basic income and "jointly-owned internet and IT sector in the government" — are entirely crowdsourced from existing human data and creation. But that being said, Staunæs doesn't necessarily believe that Leader Lars perfectly democratic.

"Artificial intelligence in the form of machine learning, has already absorbed so much human input that we can say that in one way, everybody participates in these models through the data that they have submitted to the Internet," Staunæs told Motherboard. "But the systems as we have today are not encouraging more active participation, where people actually take control of their data and images, which we can in another way through this concentrated form that publicly available machine learning models offer."

Importantly, because Leader Lars is in fact a machine, it's not allowed to run for public office itself. The same rules, however, don't apply to the party's human members, who in theory could one day run as a stand-in for it. And hey, humans serving as messengers for technologies and texts that others aren't able to grasp have always been completely fair and good for society, right?

"Leader Lars is the figurehead of the party," Staunæs continued. "Denmark is a representative democracy, so would have humans on the ballot that are representing Leader Lars and who are committed to acting as a medium for the AI."

Per Motherboard, The Synthetic Party so far has only 11 signatures out of the 20,000 needed in order to legally run for Danish parliament, so they certainly



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have a ways to go. (We're considering taking over/under bets on if Leader Lars gets a chair in Parliament before Zuck gets his legs, though.)



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7: New Ai Tool Turns Your Ugly Photos into a Beautiful Selfie

A new, AI-powered selfie generating tool called strmr.com is making the rounds on social media, allowing users to create incredibly stylized, beautiful and handsome versions of their own faces by simply feeding the algorithm around five to ten previously taken selfies.

It's yet another example of the power of AI — and a highly effective way to boost your own ego.

AI enthusiast Fabian Stelzer, the mind behind the "the world's first fully AI-generated multiplot 'film,'" gave the new tool a shot.

"Me at Woodstock, seemingly under the influence," he wrote in the caption after having the system spit out surprisingly accurate renderings of his face.

"AI selfies: custom tuned Stable Diffusion embeddings that let you generate flattering images of yourself in any context and style," he added.

Stable Diffusion is a popular AI image generator that competes with other very similar projects such as DALL-E 2 and Midjourney.

We gave the new tool a whirl for ourselves and were impressed by the results. We did find that the algorithm needed a wide variety of facial expressions and backgrounds to get good results.



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8: Ghoulish Ai Simulates Your Dead Parents

AI-powered "grief tech" is here — and unlike us mortal humans, it might be here to stay.

As MIT Technology Review reports, the tech works by training an AI on images, recordings, and footage of recently deceased people to create a virtual form that those who are grieving can "interact" with.

In most cases, the purpose of these AIs is to allow surviving loved ones to learn to live with their loss and preserve memories after death.

"From what I could glean over a dozen conversations with my virtually deceased parents, this really will make it easier to keep close the people we love," wrote MIT's Charlotte Jee, who, with the help of her living parents, tested out a grief tech startup called HereAfter AI for herself.

HereAfter

Coping with grief and loss is one of the most difficult parts of the human experience. But a crop of new startups like HereAfter — which asks users to provide hours of recordings based on specific prompts, then generates conversations from that dataset — seek to soften the blow.

"HereAfter is an app that lets you preserve meaningful memories about your life," reads the company's website, "and interactively share them with the people you love.

Other companies, like UK-based StoryFile, allow quasi-holographic versions of deceased individuals attend their own funerals.

According to Jee, her AI "parents" first sounded "distant and tinny," but started to "sound more like themselves" over time.

And it does seem like she got some value out of the experience, saying that she learned a few new stories about each of her parents' younger lives, heard some tales about her own childhood, and even got some life advice.

One could certainly make the argument that creating and listening to an AI-generated recording is just a different version of playing back old voicemails, watching old videos or just piecing through family photo albums.



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But while a photo album is static, an AI-generated voice that speaks from beyond arguably adds a different dimension of interactivity. In other words, it's invention — rather than preservation.

But at the end of the day, it's up to the grieving to decide if they want an AI to mimic their deceased relatives or friends.



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9: Ai That Generates Music from Prompts Should Probably Scare Musicians

Musicians, we have some bad news. AI-powered music generators are here — and it looks like they're gunning for a strong position in the content-creation industry.

"From streamers to filmmakers to app builders," claims music generating app Mubert AI, which can transform limited text inputs into a believable-sounding composition, "we've made it easier than ever for content creators of all kinds to license custom, high-quality, royalty-free music."

Of course, computer-generated music has been around for quite some time, making use of various forms of artificial intelligence to come up with results that can sound equally manmade and alien.

But this new generation of music-generators, led by Mubert AI as well as Google's Audio LM, feel like a different beast. They're less like creative integrations for the music-making process, and more like creative replacements for musicians themselves — eliminating the need to pay for human labor or pesky royalties altogether.

Mubert vs. Google

While both of these platforms are impressively good at generating music that sounds like it was created by a human, they work in surprisingly different ways.

Mubert AI, on one hand, generates music that sounds like something you'd hear in an elevator. According to their site, their AI is trained on "over one million [music] samples" made by "over 4,000 creators." To make a track, a user selects a combination of genre and mood signifiers, and boom — a forgettable, lyric-less background tune for your Reel or TikTok is born.

Google's Audio LM, which has been around since TK, is a bit more involved, particularly because Google's working on perfecting lyrics and vocal patterns. The user feeds Audio LM one or more audio clips – such as a few notes from a piano score — and the machine picks up where the user left off.

Content Industrial Complex

If there's any consolation, Mubert AI's argument for its existence hinges on the fact that actual musicians and producers are part of its process, who stand to earn



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some cash from whatever samples they create for the platform. Google, however, makes no such claims.

Look, we get it. It's a content-driven world, and synthetic content creation makes it easier for a lot of creators to keep up.

But as we move into a new, AI-driven world, it's always worth wondering what, if anything, gets lost in the process.



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10: Scientists Say New "Transparent Wood" Could Replace Plastic

A team of researchers claim to have created a biodegradable and renewable alternative to both glass and plastic in the form of "transparent wood," a futuristic new material that could greatly reduce the ecological impact of more environmentally-unfriendly building materials.

As detailed in a new study to be published in the journal *Science of The Total Environment*, the material could also allow us to significantly cut down the use of plastics.

"Transparent wood as a material can replace the environmentally harmful petroleum-based plastics such as polypropylene, polyvinyl chloride (PVC), acrylic, polyethylene, etc.," Prodyut Dhar, an author of the study and assistant professor at the Indian Institute of Technology in Delhi, told SciDev.Net.

Greener Alternative

The material, which was invented by German scientist Siegfried Fink in 1992, has seen several changes and improvements over the intervening years.

It's made by first removing a naturally occurring polymer called lignin from wood and replacing it with specially-designed, transparent plastic materials.

"Plastics are used as a substitute for glass which is (naturally) fragile," Dhar said. "However, transparent wood is an even better alternative from an ecological perspective as observed in our life-cycle analysis."

Shattering Glass

It won't be replacing glass and plastic in their entirety anytime soon. Scientists have yet to figure out how to scale up production of the material in an economical way.

According to the researchers' analysis, glass also still came up on top in terms of its impact (or lack thereof) on the environment.

"In recent times transparent wood has been used in construction, energy storage, flexible electronics and packaging applications," Anish Chathoth, assistant professor at Kerala Agricultural University, told SciDev.Net, but "given the growing concerns about the environmental impact of petroleum-based plastic materials, transparent wood has a role in maintaining environmental sustainability."



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11: Brutal Robot Kills Cockroaches Using a Powerful Laser

Researchers at Heriot-Watt University in Edinburgh have constructed an AI-powered robot trained to kill pesky cockroaches with a deadly laser.

If the idea of targeting pests with a killer light beam makes you a little squeamish, we understand. But the device wasn't just made for the sake of seeking revenge on annoying critters — according to *New Scientist*, the machine's inventors believe that the device could provide an inexpensive, environmentally sound replacement for toxin-laden insecticides.

Machine Vision

While the engineers behind the machine say that their invention could be used to target a variety of unwanted bugs, they believe roaches are the ideal test subject.

"If you can kill them," Ildar Rakhmatulin, the project's lead, told *New Scientist*, "you can kill any pests."

Here's how it works. The device, which is comprised of a tiny computer, two cameras, and a 1,600 milliwatt laser, uses "machine vision" to hunt its prey.

While trials thus far have been promising — the device can only barely keep up with the roaches— the researchers say there's some room for improvement. Next steps, they told *New Scientist*, are training the robot to hit the insects' specific body parts, specifically their abdomens, in order to ensure their defeat. Better safe than sorry.

There are plenty of use cases. "If we talk about industrial or agricultural applications, it's a very serious possibility," Rakhmatulin told *New Scientist*. "It's very cheap, even compared to pesticides, because laser prices are not so high."

Sadly, though, in case you wanted to install one in your own home, Rakhmatulin would advise against it.

"It'll never be absolutely safe," the scientist told the magazine, explaining that lasers can cause serious eye damage. "It's my opinion that it cannot be used for home applications."



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12: A Shocking Amount of US "Recycling" Goes Straight to the Landfill

According to a scathing new Greenpeace USA report, only five percent of plastic waste generated by US households actually gets recycled.

In other words, despite our best efforts, the vast majority of plastic waste ends up in the landfill. In large part, that's due to the fact that China stopped importing plastic waste back in 2018, causing a massive pile up in western countries.

Since then, though, the US has failed to get its act together. The average American generated just over 300 pounds of plastic per person in 2021, according to the report, which amounted to an astonishing 51 million tons of wrappers, bottles, bags and more in 2021 alone.

"After more than 30 years, it is time to accept that plastic recycling is a failed concept," the report reads, arguing that a circular plastic economy remains a "fiction."

Plastic waste remains difficult to collect, the report points out, and is often mixed, making it "functionally impossible to sort." The recycling process is also expensive and environmentally harmful in and of itself, while the resulting recycled plastic can still be contaminated by impurities.

New, non-recycled plastic also is being produced at rapidly rising rates, meaning that the situation is about to get a lot worse — not better.

Worst of all, much of this plastic can actually be recycled, such as PET and HDPE, often numbered as "1" and "2." About 20 and 10 percent of those are recycled, respectively.

Yet less than five percent of plastic numbered "3" through "7," which include things like coffee cups and plastic bags, were reprocessed, according to Greenpeace.

And there isn't much optimism in terms of turning things around any time soon.

"Industry groups and big corporations have been pushing for recycling as a solution," Greenpeace USA campaigner Lisa Ramsden told Agence France-Presse. "By doing that, they have shirked all responsibility" for making sure that recycling actually works.



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Ramsden called out Coca-Cola, PepsiCo, Unilever and Nestle in particular as some of the most egregious offenders.

To have a chance of making a change, Greenpeace is calling for the United Nations to push for a "refill and reuse" strategy, kind of "how the milkman used to be," Ramsden told AFP.

That's part of the UN's Global Plastics Treaty, which is set to legally bind its member countries to a trajectory to tackle the plastic pollution crisis by 2024.

"Instead of continuing to greenwash and mislead the American public," Ramsden added, "industry should support an ambitious Global Plastics Treaty that will finally end the age of plastic."



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13: Mad Genius Hides Computer Playing Doom Inside Candy Bar

Halloween is almost upon us — and with it, anxiety-ridden parents terrified their kids will get candy riddled with razor blades, needles, or broken glass — from strangers.

In a fun twist on those common urban myths, hackers at open-source hardware company Adafruit have created the ultimate Milky Way (Mars if you're outside of the US) candy bar — that can literally run the videogame "Doom."

"Adafruit would like to remind parents this Halloween to please carefully inspect your kids' candy," a voiceover in a video of the confectionary wunderkind says. "We found Doom running inside this Milky Way bar."

The data crunching candy bar, dubbed "Candy of Doom," is yet another example of mundane, everyday objects being able to run the 1993 blockbuster title. We've seen "Doom" being played on a John Deere Tractor, on a computer built inside Minecraft. In one instance, a YouTuber was able to play Doom on a calculator, which in turn was being powered by 100 moldy potatoes. One genius developer even managed to get "Doom" running inside Doom."

Hell, we've seen rats learn to play the game.

We're not entirely convinced Adafruit's "Doom"-playing candy bar is actually made out of chocolate — it looks suspiciously like shiny plastic — but it's a hilarious gag nonetheless.



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B - Dr. Hassan Murad School of Management

1: State Bank Pakistan (SBP) names banks responsible for increase in US dollar rate

The State Bank of Pakistan (SBP) has found involvement of eight Pakistani banks in an unprecedented increase in the US dollar rate in Pakistan and sent the names of these banks to the National Assembly Standing Committee for further action.

Habib Bank Limited, Allied Bank Limited, Bank Alfalah Limited, United Bank Limited, MCB Bank Limited, Bank Al Habib Limited, Meezan Bank Limited, National Bank of Pakistan, Askari Bank Limited and Habib Metropolitan Bank reportedly made Rs27.8 billion profit on foreign exchange in the first quarter of the fiscal year 2022-23.

These banks could not earn this much profit in full fiscal year of 2021-22. There are reports that names of more banks involved in this scandal could surface in the coming days.

According to the latest media reports, these banks and some money exchange companies too added fuel to fire when the US dollar started flying out of Pakistan soon after a successful regime change operation in the country.

Bank	Foreign Exchange Earning - CY21	Foreign Exchange Earning in 3-Months Ended June-2022	Growth (%)
Habib Bank Limited	4,590	4,339	94.53%
Allied Bank Limited	1,974	3,544	179.53%
Bank Alfalah Limited	4,129	3,421	82.85%
United Bank Limited	3,991	3,332	83.49%
MCB Bank Limited	3,734	2,903	77.75%
Bank Al-Habib Limited	2,970	2,524	84.98%
Meezan Bank Limited	3,159	2,318	73.38%
National Bank of Pakistan	6,510	2,184	33.55%
Askari Bank Limited	3,124	1,590	50.90%
Habib Metropolitan Limited	3,707	1,516	40.90%
	37,888	27,671	73.03%



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A report says, in three months of 2022, Allied Bank made 79.55% more income from foreign exchange than it did in all of 2021.

During the same three-month period, HBL made 94.55% of the income from foreign exchange than it did in the entire year of 2021.

The SBP and Pakistan's Finance Ministry are responsible for regulating the banks in Pakistan, but they failed to do their duties effectively in this case.

Former finance minister of Pakistan Miftah Ismail always described the increase in dollar rate as the result of "market fundamentals" or "economic fundamentals".

Now, it's being said that new Finance Minister of Pakistan Ishaq Dar has promised to bring the US dollar rate below Rs200. It's said that a fair analysis of the situation shows that one US dollar should be equal to Rs190 or Rs195. However, the situation on ground is completely different.



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2: Leak-Amazon Is Churning Through New Employees at an Alarming Rate

Leaked internal documents obtained by Engadget reveal that Amazon is burning through new employees at an alarming rate.

One of the many documents — all of which were reportedly labeled "Amazon Confidential" — showed that only one in three new hires stayed at the company for more than 90 days in 2021.

Unsurprisingly, that shocking level of turnover is costing the company a lot of money.

"[Worldwide] Consumer Field Operations is experiencing high levels of attrition (regretted and unregretted) across all levels," read a document analyzing Amazon's 2021 fiscal year, as quoted by Engadget, "totaling an estimated \$8 billion annually for Amazon and its shareholders."

To put that number into perspective, Amazon's net profit for the same fiscal year was about \$33.36 billion.

Regretted Attrition

Given that Amazon warehouses are already notorious for being dangerous hellscape, it's not terribly surprising to see so many new hires leaving— and in such a short period of time.

But according to the Engadget, warehouse employees aren't the only ones doing the quitting.

According to one report, both "regretted attrition" and "unregretted attrition" — workers who quit, and those who got laid off or fired, respectively — affected departments "across all levels and businesses" throughout 2021.

Yet twice as many employees chose to quit than those who got fired, "[representing] a low of 69.5 percent to a high of 81.3 percent across all levels," with the report concluding that these numbers "[suggest] a distinct retention issue."

No Mobility

According to Engadget, the reports attributed the mass exodus to limited opportunities of upward mobility within the company — corroborating a 2021 report from The New York Times.



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For their part, Amazon provided Engadget with a statement, but declined to confirm or deny any specific numbers in the leaked files.

"As a company, we recognize that it's our employees who contribute daily to our success and that's why we're always evaluating how we're doing and ways we can improve," reads the company's statement, adding that it offers "good pay, comprehensive benefits, a safe workplace, and robust training and educational opportunities" to retain its workers.

But given the sheer amount of people running for the hills, there's clearly something more to the story.



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C - School of Governance and Society

1: Scientists Say All Land On Earth Is Smashing Together into A New Supercontinent

Over the next 300 million years, all the Earth's continents will smash together and form a new supercontinent called Amasia, closing the Pacific Ocean in the process.

At least, that's according to a new study from researchers at Curtin University, published in National Science Review last week, that plots the medium-term geological future of our planet.

"Over the past two billion years, Earth's continents have collided together to form a supercontinent every 600 million years, known as the supercontinent cycle," said study lead author Chuan Hung in a press release. "This means that the current continents are due to come together again in a couple of hundred of million years' time."

To establish a timeframe, the researchers used 4D geodynamic modeling of the Earth's tectonic plates, determined to find out why previous supercontinents formed in completely different ways.

Of those ways, introversion is one of two main models, and occurs when continents close over an internal ocean that was formed when the previous supercontinent broke apart. On the opposing end is extroversion, which has the continents closing over the external, former superocean. If that bit of rocky history could be cleared up, the researchers could better predict the next supercontinental assembly.

What the researchers found is that the strength of the oceanic lithosphere determines which form of assembly occurs, and from there concluded that extroversion will be responsible for the next supercontinent. In this case, the former superocean is the Pacific, formerly the much greater Panthalassa superocean that surrounded Pangea, the previous supercontinent.

"The resulting new supercontinent has already been named Amasia because some believe that the Pacific Ocean will close (as opposed to the Atlantic and Indian oceans) when America collides with Asia," said Huang. "Australia is also expected to play a role in this important Earth event, first colliding with Asia and then connecting America and Asia once the Pacific Ocean closes."



If they hold up, these are remarkable findings that provide a glimpse of the planet's future. But it's still only one of many hypotheses regarding the shifting of continents, including the Pangea Proxima model, which suggests the aforementioned Atlantic and Indian oceans will close instead.



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2: Cops Upload Image of Suspect Generated from DNA, Then Delete After Mass Criticism

An image of a suspect, created from a sample of his DNA? It sounds like dystopian sci-fi, but experts say it's even worse — it's tech that cops are already rolling out, even though it almost certainly doesn't work.

Alberta, Canada's Edmonton Police Section (EPS) took to Twitter on Tuesday to share an image created using DNA phenotyping, which the department claims can be used as a helpful tool to predict — not actually identify, just predict — what a criminal might look like.

The only problem? The tech is nowhere near mature, to the degree that it's unlikely that it's able to generate an accurate portrait, and it can't make any guess at all regarding key physical details ranging from age to facial hair.

The EPS alluded to those limitations in its press release, but decided to go ahead and release an image of the computer-generated suspect regardless. One key and loaded detail? The AI-generated suspect was Black — and experts were quick to raise the alarm.

"Geneticist here," tweeted Dr. Adam Rutherford, a genetics lecturer at University College London, in response to the announcement. "You can't make facial profiles or accurate pigmentation predictions from DNA, and this is dangerous snake oil."

Rutherford is almost certainly right. The EPS purchased the tech, dubbed Snapshot, from a company called Parabon NanoLabs, which on its website promises to help police departments "solve [their] cases — FAST!" You know, because that's what everyone wants cops to do — whip up a would-be "criminal" using what's essentially an Ancestry.com profile, so they can get'er done quick by... what? Investigating anyone who might match that "description?" Got it.

Again, the science just doesn't check out well enough for any of these generated description to be used in good faith. As Rutherford noted, it's impossible to accurately gauge most physical characteristics — skin color included — from a phenotype. It flat-out can't tell you someone's age or weight, and fully leaves out any physical changes wrought by environmental factors like pollution — which the EPS knows, because it had to use several default settings to generate their person of interest.



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Bafflingly, the EPS did acknowledge many of those shortcomings in its announcement.

"Using DNA evidence from this investigation... a 'Snapshot' composite was produced depicting what the POI may have looked like at 25 years old and with an average body-mass index (BMI) of 22," reads the department's press release. "These default values were used because age and BMI cannot be determined from DNA."

In other words: this POI might have these characteristics, and though his age is unknown, this is what the maybe-person could have looked like at the age of 25 with a BMI of 22. There's a hole in the logic at every angle, here.

But they rolled it out anyway. On social media, critiques were searing.

"This is why we want the police defunded," wrote one Twitter user. "You're wasting money on racist astrology for cops."

"I like that you were somehow sold this product," responded another, "without anyone going 'wow, that's an obviously terrible idea' at any point."

That anger didn't fall on deaf ears. After a wave of criticism, the EPS removed the image from its press release and social media, and issued a moderately contrite new statement.

"The potential that a visual profile can provide far too broad a characterization from within a racialized community and in this case, Edmonton's Black community, was not something I adequately considered," wrote Enyinnah Okere, the chief operating officer for the Community Safety and Well-Being Bureau of EPS. "There is an important need to balance the potential investigative value of a practice with the all too real risks and unintended consequences to marginalized communities."

"Any time we use a new technology — especially one that does raise concerns about profiling of a marginalized group — we cannot be careful enough in how we validate these efforts and fully, transparently consider the risks," he continued. "We have heard legitimate external criticism and we have done our own gut checks internally to determine whether we got the balance right — and, as a leader, I don't think I did."



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For now, the tech seems like a dead end generator, not to mention a pseudoscientific dragnet that get innocent people caught in the crossfire.



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3: President Biden Says He's Concerned About Nuclear "Armageddon"

President Joe Biden is publicly warning that the world is closer to the brink of a nuclear "Armageddon" than it has been since the height of the Cold War — but thankfully, there are no new developments to back up those claims just yet.

"We have not faced the prospect of Armageddon since Kennedy and the Cuban Missile Crisis," the president told his audience at a Democratic fundraiser on Thursday night, as quoted by the Associated Press.

Biden went on to issue a minor jab at Russian president Vladimir Putin, who he said may take the nuclear option, "because his military is — you might say — significantly underperforming" in its invasion of Ukraine, an American and North Atlantic Treaty Organization (NATO) ally.

But as CNN reports, officials briefed on the matter say that there's no new intelligence — at least that is being shared publicly — to back up Biden's stark claim.

Administration and intelligence officials told the press that there isn't really any specific cause for concern as of right now.

"Our posture hasn't changed," one of the officials told CNN. "If there was some new piece of alarming information, it obviously would."

A different official told the AP on condition of anonymity that the president is speaking in broad terms and isn't referencing any new or specific intelligence.

The official also emphasized that the comment is in line with previous comments the president made at the United Nations General Assembly.

Still, it's incredibly jarring to hear the US president use such terminology — and one can only hope that his Russian counterpart doesn't take it to heart.



4: University Fires Chem Professor After Students Complain His Course Was Too Hard

As anyone who's taken it will probably tell you, organic chemistry is notoriously difficult. It's widely recognized as a "weed out" course — disproportionately high failure and withdrawal rates are common, if not expected, and many argue that such rigorousness is an effective filter for keeping certain students from entering professions, like medicine, that they arguably shouldn't.

But not all share that sentiment. They often counter that these brutal courses are difficult for the sake of it, working to gatekeep rather than teach. And this debate, as *The New York Times* reports, may have just reached a precedent-setting boiling point at New York University, where a notable chemistry professor, Dr. Maitland Jones Jr., was recently let go after 82 of his 350 students filed a scathing petition against him, arguing that his class was simply too hard.

"We are very concerned about our scores, and find that they are not an accurate reflection of the time and effort put into this class," read the petition, according to the NYT. "We urge you to realize that a class with such a high percentage of withdrawals and low grades has failed to make students' learning and well-being a priority and reflects poorly on the chemistry department as well as the institution as a whole."

Of course, this is a complicated issue. As the NYT reports, the disgruntled students' complaints have been met with swift and harsh backlash by supporters of Dr. Jones, who taught at Princeton for decades and even wrote a course-changing textbook before making his way to NYU. And again, organic chemistry is infamous for its difficulty everywhere, not just under one professor — after all, this is a course that many believe should separate those who should make and prescribe medications from those who should probably pursue something else.

"Unless you appreciate these transformations at the molecular level," Kent Kirshenbaum, another professor in Dr. Jones' department, told the NYT, "I don't think you can be a good physician, and I don't want you treating patients."

To that note, some of Dr. Jones' allies believe that NYU's surprising decision to terminate a storied faculty member at the behest of its students is more a business decision than anything else. Colleges are profit-seeking enterprises, after all, and failing grades don't make students — or, perhaps more importantly, the parents who bankroll them — very happy. And in fact, in an email detailing his firing,



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the university reportedly explained to Dr. Jones that in letting him go, they were extending a "gentle but firm hand to the students and those who pay the tuition bills."

"The deans are obviously going for some bottom line," Dr. Paramjit Arora, a chemistry professor who has worked closely with Dr. Jones, told the NYT, "and they want happy students who are saying great things about the university so more people apply and the US News rankings keep going higher."

That being said, there's absolutely something to be said for the challenges presented by online learning, especially during the anxiety-triggering global trauma of the COVID-19 pandemic. Students — and teachers — were made to adapt very quickly to the crisis, both in life and in school, and course matter didn't always translate in this new and often inaccessible mediation.

It's also worth noting that Dr. Jones, at 84, is said to be old-fashioned. His teaching style — which the petition reportedly calls "condescending and demanding" — may no longer connect with a younger generation.

"He hasn't changed his style or methods in a good many years," Dr. James W. Canary, a former NYU department chairman, told the NYT. "The students have changed, though, and they were asking for and expecting more support from the faculty when they're struggling."

But while universities do need to work with a post-pandemic, younger generation of students — especially when it comes to the challenges wrought by online courses — it's possible that NYU's decision to fire Dr. Jones might be sending the wrong message. At the end of the day, organic chemistry is hard. Should that change?

"[Dr. Jones] learned to teach during a time when the goal was to teach at a very high and rigorous level," Dr. Arora's comments continued. "We hope that students will see that putting them through that rigor is doing them good."



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5: Russia Accused of Pelting Ukraine Capital with "Kamikaze" Drones

Ukraine is asking its Western allies for more weapons after accusing Russia of using both homemade and Iranian-manufactured "kamikaze drones."

As CNN reports, Ukraine is accusing Russia of targeting its capital of Kyiv with small, self-destructing drones, as well as the cities of Vinnytsia, Odesa, Zaporizhzhia, among others.

According to the report, Iran tried to sell kamikaze drones to Russia earlier this year. In August, Russia's military purchased some of them and began training service members how to operate them.

The Ukrainian military also claims to have shot down similar drones made by Russian defense contractor and weapons manufacturer Kalishnikov.

Unlike traditional, weaponized drones that drop munitions and return to whoever is controlling them, these remote-controlled weapons are called "kamikaze" or "suicide" drones because they're disposable and meant to blow up upon detonation.

US military officials claim Russia's drones are using obsolete technologies and "have already experienced numerous failures."

In late September, Department of Defense official Sasha Baker told reporters that "the idea that [these drones] represent some technological leap ahead, frankly we're just not seeing borne out in the data."

Ukraine has also claimed that Iranian nationals in Russian-controlled parts of the country are training the invading soldiers how to use the weapons, the Associated Press reports. This could indicate that Russia is running out of its own kamikaze drones.

As Department of Defense officials told reporters earlier this week, the kamikaze drone escalation has reemphasized Ukraine's desire for air defense systems.

Russia isn't the only side of the conflict making use of the technology. Ukraine has its own homemade kamikaze drones as well, but has primarily been relying on its allies for remote weapons support, including the American-made Switchblade and "phoenix ghost" suicide drones, according to CNN.



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There appears to be no shortage of drone warfare in Russia's ongoing invasion of Ukraine, confirming that we've truly entered a new era of warfare.



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6: Saudi Arabia Begins Construction of 100 Mile Skyscraper

New drone footage shows that Saudi Arabia has begun excavating for its giant, 100-mile-long skyscraper development — an outlandish and highly controversial megacity in the middle of the desert.

As architecture magazine Dezeen reports, engineers broke ground on the development dubbed NEOM, which is slated to be built in a 105-mile-straight line — hence its moniker, "The Line" — and will, per the kingdom's statements at the time it was announced, be car-less and have zero emissions.

Drone footage shared by Dezeen shows a huge construction site, with dozens of excavators digging a massive trench of epic proportions.

But there are far darker things going on behind the scenes, indicating that the project is already off to a rough start.

Executive Function

For instance, members of the Huwaitat tribe who refused to leave their homes to make way for the development have reportedly been sentenced to death by the state, human rights NGO Alqst revealed earlier this month.

According to the report, the Saudi government confirmed earlier in October that three members of the tribe were sentenced to be executed in the country's national terrorism court for refusing to leave their homes when developers came to seize their land for the megacity.

Dystopia Now

Though this sort of thing is far from new for Saudi Arabia, the fact that the country is committing human rights abuses on this level while also planning what Vice calls a "utopian fantasy" is particularly dissonant.

Beyond the glaring human rights issues at play, the project itself — which sounds a lot like a stationary version of the train from "Snowpiercer" — is, as Vice and many others have noted, pretty outlandish.

That's because, aside from being overly ambitious, the concept seems extremely strange logistically speaking, with a planned height taller than the Empire State Building, but a width of less than 700 feet.

In Saudi Arabia and in the rest of the world, progress at all costs is king — and those who are in the way of it are, it seems, expendable.



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7: Elon Musk Has Lost \$100 Billion In Under a Year

Last year, as his net worth soared past \$300 billion dollars, Elon Musk was crowned the world's richest person in history.

Fast forward about 11 months — involving a "bad feeling" about the economy, a sudden, complicated, and likely soiled bid to buy Twitter, and a self-imposed foray into social media foreign policy — and according to Forbes, over \$100 billion of that historic net worth has effectively vanished. As of Thursday, Musk's net worth is down to around \$209.4 billion, in a 35 percent year-over decrease.

Don't get us wrong. Musk's wealth is still so unfathomably vast that even after losing that \$100 billion, he's still the world's richest person. Still, that's a lot of money to lose, especially as far as it can be attributed to the founder's chaotic personal antics: secret babies with employees, escalating US-Russia tensions over the war in Ukraine with a Twitter poll.

That being said, though, one could argue that Musk would never have become who he is — and with that, how wealthy he is — today if not for his deeply chaotic online presence. His use of Twitter to rile and agitate has no doubt contributed to his cultural relevance, and alongside that relevance, investors and fans alike have followed.

Or it did, at least. These new numbers tell a different story, and they likely have a lot to do with Musk's maybe-failed deal to buy Twitter. He can't put up the money alone, and at least one of his outside investors has very publicly stated that they and others want out. (As a partial result of that bungled deal, the founder may soon be up for a national security review. So there's that, too.)

"The problem for Tesla investors is that more stock sales are likely by Musk to fund [the Twitter] deal," Wedbush analyst Dan Ives told Forbes, "which we believe will go down as one of the worst, most overpaid M&A deals in the history of the market."

But drama aside, his actual companies have faced more, uh, normal difficulties. The economy is hurting everyone, for starters. And earlier in the year, the CEO quipped that due to supply chain woes, his Tesla gigafactories should have sounded "like a giant roaring sound which [was] the sound of money on fire." Of course, government recall investigations might have had something to do with those money troubles, too.



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At the end of the day, Musk is still richer than one Jeff Bezos, so we're sure he's pleased about that. In any case, it's unlikely that the world's still-richest man will change his controversial ways anytime soon — after all, he's clearly not that worried about what those ways might do to his own savings. The jury's still out on whether his investors will continue to trust him with theirs, though.



Estd. 1990

**Office of Research Innovation
and Commercialization**

D - School of Media and Communication Studies

1: Russian Scientists Propose Plan to Launch Huge Advertisements into Orbit Over Cities

Russian researchers are suggesting we could send hordes of satellites into space to display commercials in the night sky over cities by reflecting sunlight in vast formations.

It's a deeply obnoxious vision of the future that's bound to irritate astronomers — who are already struggling with highly reflective satellite constellations ruining their observations — as well as anyone who appreciates an unobstructed view of the night sky.

In a new paper published in the journal *Aerospace*, researchers from the Moscow-based technical institute Skoltech and the Moscow Institute of Physics and Technology concluded that sending a formation of satellites into orbit to display commercials above population centers could not only be feasible, but cost a mere \$65 million per mission.

"We've been studying some of the more technical aspects of space advertising for a while now," said first author Shamil Biktimirov, a research intern at Skoltech's Engineering Center, in a statement. "This time we looked at the economic side of things and, as unrealistic as it may seem, we show that space advertising based on 50 or more small satellites flying in formation could be economically viable."

Each individual "pixel" or satellite of the space billboard would have to be pretty massive to reflect enough light and make the whole thing financially feasible.

Biktimirov suggested each cubesat satellite could be as large as a 350-square-foot solar sail, referencing the area of LightSail 2, the largest solar sail to have ever been sent to space so far.

Biktimirov and his colleagues calculated that revenues would depend on a number of factors, including "cloudiness, cold weather keeping folks indoors, and the city's demographic composition."

The satellites wouldn't be displaying a single ad from a single brand, rotating through a number of different ads over the next most profitable city within reach.



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But the approach has one big drawback as well. Since the satellites work by reflecting sunlight, they'd only really be visible around sunrise and sunset, and not at night.

That could also stop these satellites from messing with ground-based observations of the night sky, the researchers conclude in their paper.

But under ideal circumstances, they claim, a 91-day campaign could generate \$111 million after expenses.

Would brands even be willing to take a plunge, though, by using their slogans and logos to litter the sky? If past efforts are anything to go by, that's far from a given.

In 2019, Russian startup StartRocket similarly suggested displaying massive billboard-style advertisements in the night sky.

"We are ruled by brands and events," project leader Vlad Sitnikov told *Futurism* at the time. "The Super Bowl, Coca Cola, Brexit, the Olympics, Mercedes, FIFA, Supreme and the Mexican wall. The economy is the blood system of society."

Three months later, StartRocket announced it had signed a contract with PepsiCo to send an "orbital billboard" into space — but the beverage maker revealed soon after that it had dropped any plans to pursue such a venture with the startup.

The idea of sending microsattellites into orbit purely to have them display advertisements has already proven controversial to say the least, with astronomers advocating "for a night sky that is free of this kind of activity and remains as accessible to all humanity as possible," as University of Michigan astronomer Patrick Seitzer told *Astronomy* back in 2019.

Whether advertisers will be willing to be associated with such a practice remains to be seen — but it's probably unlikely.



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2: Brutal Video Simulates When Earth Hit Another Planet Many Years Ago



We're still not entirely sure how the Moon formed billions of years ago — a mystery scientists have been trying to unravel for decades.

But with the help of simulations and supercomputers, we're getting a whole lot closer.

One of the most popular hypotheses explaining the formation of the Moon suggests it was formed after a Mars-sized object dubbed Theia collided with the Earth around 4.5 billion years ago.

The resulting debris cloud then coalesced over months or years, forming the Moon as we know it today, although details about the hypothetical collision remain a mystery.

One of the biggest pieces of the puzzle to date is the fact that the rocks returned by astronauts during the Apollo missions closely resembled the composition of rocks on Earth.

Now, a stunning new simulation by researchers at Durham University opens up a strikingly different theory: the Moon may have formed in a much shorter time period — a matter of hours, not months or years — following Earth's and Theia's collision.



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The team used cutting edge supercomputers to simulate hundreds of different impacts between two colliding bodies. The resulting video is a stunning animation of two floating objects, caught in a lava-spewing dance.

<https://www.youtube.com/watch?v=SLyz4wH4HdA>

Thanks to the much-improved resolution of their simulations as compared to previous efforts, the researchers concluded that a Moon-like satellite likely formed in a much shorter period of time. That's because less of the material resulting from the collision was in a molten state than previously thought.

In other words, the Moon may be made up of much more Earth material, especially when it comes to its outer layers, which makes sense given what we know about their similarities in composition.

The theory also suggests that the Moon may have an only partially molten core, explaining its unusually thin crust and why its orbit is tilted.

"We went into this project not knowing exactly what the outcomes of these high-resolution simulations would be," said Jacob Kegerreis, a postdoctoral researcher at NASA's Ames Research Center, and lead author of a new paper published in *The Astrophysical Journal Letters*, in a statement.

"So, on top of the big eye-opener that standard resolutions can give you misleading answers, it was extra exciting that the new results could include a tantalizingly Moon-like satellite in orbit," he added.

It's an exciting new chapter in our quest to understand where the Earth's closest neighbor came from.

"The more we learn about how the Moon came to be, the more we discover about the evolution of our own Earth," said Vincent Eke, a researcher at Durham University and co-author of the paper, in a NASA statement.



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E - Office of Research, Innovation and Commercialization (ORIC)

1: 16th RESC Meeting on Evaluation of Projects for Rector's Award for Entrepreneurship and Innovation

The 16th meeting of the Research Ethics and Support Committee (RESC) on "Evaluation of Projects for Rector's Award for Entrepreneurship and Innovation" was held on Thursday, October 20, 2022, at 10:00 AM in the DG Board Room, 5th Floor, Admin Building, UMT. The Respected Prof. Abid HK Shirwani (Co-Founder, Director-General and Head ORIC, UMT) and Prof. Dr. Muhammad Yusuf Awan (Committee Chair), headed the meeting and welcome all the participants. The meeting participants were members of the RESC Committee, **Honorable External Evaluators: Mr. Raja Omer Nawaz (CEO RON Extrus Engineering) and Mr. Hamid Malik (Managing Director Induss Pak Corporation)**, and ORIC-Team.

The purpose of this meeting was to evaluate the final year projects of the students from UMT for Rector's Award for Entrepreneurship and Innovation. A total of 17 student's projects were received from different schools of UMT, and 13 were presented before the committee for evaluation. After the presentations by students, the committee finalized the following nine (09) projects for the Rector's Award for Entrepreneurship and Innovation.

Accept Project for Award

<u>Sr. No</u>	<u>Project Title</u>	<u>Students</u>	<u>Supervisor</u>	<u>Department and School</u>
1	Online Learning & Earning (OLAE)	Ayesha Rafiq (F2018314002)	Yasir Amjad (Director CENTIN/Manager Futurizm)	CENTIN
2	Design, Analysis and Prototype Development of Fire Extinguisher Drone	Syed Asjad Ali Shamsi (F2018134075) Muhammd Jazam Ali (F2018134051) Jebal Nadeem (F2018134043)	Dr. Irsa Talib (Assistant Professor)	Department of Mechanical Engineering, School of Engineering



3	Next Generation Cognitive Connected Vehicles	Muhammad Bilal Sher Khan Shirwani (F2018019030) Marriam Sikander (F2018019001)	Dr. Faran Awais Butt (Assistant Professor)	Department of Electrical Engineering, School of Engineering
4	Safety Management of Construction Projects Using Building Information Modelling	Muhammad Hamza (F2018132018) Bazil Hassan Saif (F2018132023) Muhammad Abdullah (F2018132011) Usama Khalil (F2018132042)	Mr. Usman Ilyas (Assistant Professor)	Department of Civil Engineering, School of Engineering
5	Rapid Prototyping of Prosthetic Foot using Alternative Materials	Mudassar Arshad (F2018134037) Muhammad Ahmad Raza (F2018134023) Muhammad Fahad (F2018134018)	Miss. Iqra Ramzan (Lecturer)	Department of Mechanical Engineering, School of Engineering
6	Design of an autonomous drone for the Delivery of Organs Utilizing WebRTC	Muhammad Faizan (F2018019027) Abdul Muqet (F2018019022)	Hassan Tariq (Lecturer)	Department of Electrical Engineering, School of Engineering
7	Diagnostic Study of Wilshire Labs (Pvt.) Ltd.	Syeda Dua Abbas (F2020274014)	Mr. Asher Ramish (Assistant Professor)	Department of Operations and Supply Chain, Dr. Hasan Murad School of Management
8	RTL to Silicon: Implementation of lightweight Present crypto-core using open Source Fabrication	Eeman Zafar (F2018019042) M. Aaqib Riaz (F2018019075)	Mr. Hassan Tariq (Lecturer)	Department of Electrical Engineering, School of Engineering
9	Robotic Arm with controlled gesture using IOT	Adil Masood (F2018019061) Zulekha Naveed (F2018019081)	Mr. Abdullah Khalid (Lecturer)	Department of Electrical Engineering, School of Engineering





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2: UMT Is 1st HEI in the Private Sector by THE WUR Rankings-2023

The University of Management and Technology has secured the 1st position among all the private Universities of Pakistan in THE World University Rankings (WUR) 2023 edition. It is also noteworthy that UMT is ranked 2nd among 29 Public & Private Universities of Pakistan that participated in THE WUR.



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Punjab Higher Education Commission congratulates
the universities in Punjab for securing positions in
Times Higher Education Ranking



Rankings of Universities in Punjab

SN	University Name	Ranking 2023
1	Government College University, Faisalabad	501-600
2	University of Management and Technology, Lahore	501-600
3	University of Engineering and Technology, Taxila	601-800
4	University of the Punjab, Lahore	801-1000
5	University of Agriculture, Faisalabad	801-1000
6	The Islamia University of Bahawalpur	801-1000
7	University of Lahore	801-1000

Source: <https://www.timeshighereducation.com/world-university-rankings/2023/world-ranking>



3: Events Organized and Facilitated by ORIC-UMT

3.1 Arranged visit of Delegation from Education Malaysia Global Services (EMGS) and Nine Malaysian Universities

Office of Research Innovation and Commercialization (ORIC), University of Management and Technology (UMT) hosted a visit of the Chief Executive Officer (CEO), Education Malaysia Global Services (EMGS) and the representatives of 9 different Universities of Malaysia on September 02, 2022 at UMT; details of which are as follows:

- Muhammad Ali, Senior Manager International Development - Asia Pacific University (APU), Malaysia
- Moeen Uddin Ahmed Khan, Regional Manager Marketing - Education Malaysia Global Services (EMGS), Malaysia
- Raja Muhammad Fraiz Bin Raja Eyuddin, Assistant Manager Marketing - Education Malaysia Global Services (EMGS), Malaysia
- Mohamad Yazed Bahaman, Director Marketing - Open University Malaysia (OUM), Malaysia
- Mohd Nizam bin Abdul Aziz, Assistant Director - International Islamic University Malaysia (IIUM), Malaysia
- Mr Shahid Manzoor, Senior Lecturer - University College Sedaya International (UCSI), Malaysia
- Dr. Nurhizam Safie bin Mohd Satar, Senior Lecturer - Universiti Kebangsaan Malaysia (UKM), Malaysia
- Muhammad Qamar, Senior Lecturer- Universiti Kebangsaan Malaysia (UKM), Malaysia
- Mohammad Raihan Rahman, Boby Senior Executive - SEGi University, Malaysia
- Faizal Mahmud, Marketing Executive, Open University Malaysia (OUM), Malaysia



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Prof. Abid H K Shirwani (Co-Founder, Director-General and Head ORIC-UMT) hosted the meeting with **Mr Saleem Ata** (Registrar, UMT) and the other Fellows and Faculty members of UMT.

The purpose of this meeting was to enable a new horizon of collaborative research between UMT and different Malaysian Universities, along with exchange programs.



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The 8th INTERNATIONAL CONFERENCE ON COMMUNICATION AND MEDIA

i-COME'22

Theme
**THE FUTURE COMMUNICATION LANDSCAPE:
 ENVISIONING GLOBAL AND TECHNOLOGICAL CHANGES**

1-3 OCTOBER 2022

virtual conference

PUBLICATIONS:

Accepted papers of i-COME'22 will be published in an indexed conference proceedings (CPCI-WoS). Papers written in Bahasa Melayu/ English will be considered for publication in Asian People's Journal or Jurnal Komunikasi Borneo or Journal of Indonesian Economy and Business (SCOPIUS).

Organised by:
 School of Multimedia Technology and Communication
 Universiti Utara Malaysia

Publishers:



SUBTHEMES

Cyber Social Issues
 Environmental Communication
 International Communication
 Communication and Education
 Media Challenges and Opportunities

Organisational Communication
 Communication for Social Change
 Intercultural Communication
 Advertising and Marketing
 Political Communication

REGISTRATION FEE DETAILS

Normal (Presenter) : MYR850.00
 MYR750.00 (UUM Staff)

Partner Institution (5 participants):
 MYR700.00 per paper

Additional Paper : MYR500.00

Graduate Students : MYR650.00

Participant (not presenter) : MYR100

*Payment received BEFORE 31 JULY 2022.

IMPORTANT DATES

Full Paper Submission Deadline:
 31 July 2022

Notice of Paper Acceptance:
 15 August 2022

Submission of Camera-Ready Paper:
 31 August 2022

Partner Institutions:



Sponsored by:



For more information visit our website: <http://smmtc.uum.edu.my/i-come>



i-COME'22

i-COME'22 INTERNATIONAL CONFERENCE ON COMMUNICATION AND MEDIA

KEYNOTE SESSIONS

1 October 2022

9.00AM - 9.45AM



PROF. STEPHEN M. GROUCHER

CONVENER, CENTER FOR COMMUNICATIONS, UNIVERSITY OF CALIFORNIA, RIVERSIDE
 PRESIDENT, INTERNATIONAL COMMUNICATIONS ASSOCIATION
 CHAIRMAN, COMMUNICATIONS ASSOCIATION OF AMERICA

10.00AM

10.00AM - 10.45AM



DATO' DR. JAFRI ABDUL JALIL

DEPUTY CHIEF OF CYBER SECURITY, MALAYSIAN CYBER SECURITY AGENCY
 PRESIDENT, MALAYSIAN CYBER SECURITY ASSOCIATION

2 October 2022

9.00AM - 9.45AM



PROF. WALID A. AFIFI

ASSOCIATE DEAN FOR COMMUNITY ENGAGEMENT, UNIVERSITY OF CALIFORNIA, RIVERSIDE
 PRESIDENT, INTERNATIONAL COMMUNICATIONS ASSOCIATION
 NATIONAL EXECUTIVE BOARD MEMBER, NATIONAL ASSOCIATION OF UNIVERSITY DEANS

10.00AM

10.00AM - 10.45AM



DATO' SURIYANI BINTI DATO' AHMAD

SECRETARY GENERAL, MINISTRY OF COOPERATION, MALAYSIA
 DEPUTY CHIEF OF POLICE, MALAYSIAN CYBER SECURITY AGENCY

3 October 2022

11.00AM - 11.45AM



PROF. ASID HUSSAIN KHAN SHERWANI

DEPUTY CHIEF OF POLICE, MALAYSIAN CYBER SECURITY AGENCY
 PRESIDENT, MALAYSIAN CYBER SECURITY ASSOCIATION

i-COME'22 welcomes participants from all over the world who are interested in communication and media, especially how globalization and current situation affect the future landscape of the fields. The aim of the conference is to provide platform for scholars, researchers and practitioners from both academia and industry to meet and share the advanced development and changes in both areas.

**"The Future Communication Landscape:
 Envisioning Global and Technological Changes"**

1-3 OCTOBER 2022



<https://www.facebook.com/icomemuum>



Partner Institutions:



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For more information visit our website: <http://smmtc.uum.edu.my/i-come>



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3.3 Training Program on Web 3.0 and Metaverse at University of Management and Technology (UMT).

Office of Research Innovation and Commercialization (ORIC), University of Management and Technology (UMT), in collaboration with The Presidential Initiative for Artificial Intelligence and Computing (PIAIC) arranged a training Program on Web 3.0 and Metaverse at UMT.

The mission of PIAIC is to reshape Pakistan by revolutionizing education, research, and business by adopting the latest, cutting-edge technologies. Experts are calling this the 4th industrial revolution. PIAIC wants Pakistan to become a global hub for Artificial Intelligence (AI), data science, cloud native computing, edge computing, block-chain, augmented reality, and internet of things.

Web 3.0 is the third generation of the evolution of web technologies and is an idea for a new iteration of the World Wide Web, which incorporates concepts such as decentralization, block-chain technologies, and token-based economics. The training classes for Web 3.0 and Metaverse started on 02 October, 2022 and will be held every Sunday from 09:00 AM to 06:00 PM at UMT. More than 1000 plus students enrolled and attended this course every Sunday.



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3.4 ORIC organized a free Seminar on “How to Find Inner Peace”

In collaboration with the Pakistan Training Development Institute (PTDI), ORIC organized a free Seminar on “5 Secrets of Success”, on Thursday, 13 October 2022. (Guest Speaker: Dr Saad Ullah Asad - Principal CEO at Mindset Consulting Group). Number of participants attended = 40+

The poster features a dark blue background with a silhouette of a person standing on a rocky peak. The UAMT logo is on the left, and the PTDI logo is on the right. The title 'Seminar on How to Find Inner Peace' is prominently displayed in a white box. Event details (Date, Time, Venue) are listed on the right. A circular photo of Dr. Saad Ullah Asad is shown next to his name and title.

**Office of Research
Innovation and Commercialization**

ptdi
Pak Training and
Development Institute

Seminar on

How to Find Inner Peace

Date: Thursday, October 13, 2022
Time: 5PM to 6PM
Venue 1C-16

Trainer
Dr Saad Ullah Asad
Spiritual Life Coach



**Office of Research Innovation
and Commercialization**

3.5 ORIC organized a free Seminar on “5 Secrets of Success”

In collaboration with the Pakistan Training Development Institute (PTDI), ORIC organized a free Seminar on “5 Secrets of Success”, on Thursday, 20 October 2022. (Guest Speaker: Dr Saad Ullah Asad - Principal CEO at Mindset Consulting Group). Number of participants attended = 40+

The poster features a dark blue background with a silhouette of a person standing on a rocky peak. In the top left corner is the logo of the University of Management and Technology (UAMT), established in 1990. To its right is the text 'Office of Research Innovation and Commercialization'. In the top right corner is the logo for PTDI (Pak Training and Development Institute). The central text reads 'Seminar on 5 Secrets of Success'. Below this, on the left, is a portrait of Col Javed Sher, CEO of PTDI. To the right of the portrait, the event details are listed: 'Date: Thursday, October, 20 2022', 'Time: 5PM to 6PM', and 'Venue 1C- 15'. Below the date is a circular portrait of Dr Saad Ullah Asad, identified as the 'Trainer' and 'Spiritual Life Coach'.



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3.6 ORIC organized a free Seminar on “Relationship Management and Emotional Intelligence”

In collaboration with the Pakistan Training Development Institute (PTDI), ORIC organized a free Seminar on “Relationship Management and Emotional Intelligence”, on Thursday, 27 October 2022. (Guest Speaker: Shaheen Akhtar- Family and Relationship Counsellor).

The poster features a dark blue background with a silhouette of a person standing on a rock. In the top left corner is the UAMT logo (University of Management and Technology, Estd. 1990) and the text 'Office of Research Innovation and Commercialization'. In the top right corner is the PTDI logo (Pak Training and Development Institute). The main title 'Seminar on Relationship Management and Emotional Intelligence' is centered in white. Below the title, on the left, is a photo of Col Javed Sher, CEO of PTDI. On the right, the event details are listed: 'Date: Thursday, October, 27 2022', 'Time: 5PM to 6PM', and 'Venue 1C- 15'. Below these details is a photo of Shaheen Akhtar, Trainer, Family and Relationship Counsellor.

**Office of Research
Innovation and Commercialization**

ptdi
Pak Training and
Development Institute

Seminar on Relationship Management and Emotional Intelligence

**Col
Javed Sher
CEO PTDI**

Date: Thursday, October, 27 2022
Time: 5PM to 6PM
Venue 1C- 15

**Trainer
Shaheen Akhtar
Family and Relationship Counsellor**



**Office of Research Innovation
and Commercialization**