

CROWDING OURSELVES OUT OF EXISTENCE? HERE'S HELP

Pitch your start-up idea here – PG 3

Drones against Covid – PG7

Trucks, SUVs and cyberfunk for 2021 – PG 4



2 TOGGLE

Westworld creators are developing a Fallout show for Amazon

"Fallout," the post-apocalyptic video game franchise by Bethesda Softworks, has been picked up for a live-action adaptation TV by Amazon Studios.

The show, currently in the preproduction stage, is being developed by Jonathan Nolan and Lisa Joy of Kilter Films production company. The husband-and-wife duo is best known for their HBO adaptation of the 1970s Michael Crichton film "Westworld".

In a statement, Nolan and Joy said "Fallout is one of the greatest game series of all time. Each chapter of this



insanely imaginative story has cost us countless hours we could have spent with family and friends. So

New cars this week

Proton generally offered rugged but utilitarian cars in Bangladesh. No cool Satrias for us (bar the couple of superb GTs that came in 20 years ago). No one aspires to own a Proton here. When the Chinese automotive giant Geely acquired the brand in 2017 however, they quietly began making some changes. Their newest car, the X70, is a Napa leather-covered 5-seater crossover whose list of feature rivals that of a more popular premium offering from Honda or even a classy German. What do we mean? Well along with the aforementioned upholstery, the car comes with a full panoramic sunroof, 360-degree AR camera, cruise control, autonomous braking and all the other features you would expect in a full-sized luxury barge. In addition, the in-built voice command in the infotainment system is designed to pick up South Asian accent and can do everything from playing your favorite song to rolling down all the car windows. For power, the car's 1.5 liter turbocharged four-cylinder engine generates 174 HP and 188 lb-ft of torque, which is delivered to the rear wheels through a seven-speed dual-clutch transmission. Prices start at TK 37.98 lac for the base model and go all the way up to TK 41.98 lacs for the Premium X model, which is surprisingly good for a car with this much feature. Oh, and all cars will come with a 5-year 150,000km warranty.





Venmo piloting 'Business Profiles' feature for small sellers







Studios."



we're incredibly excited to partner

with Todd Howard and the rest of the

brilliant lunatics at Bethesda to bring

The Fallout universe, which began

this massive, subversive, and darkly

funny universe to life with Amazon

in 1997, takes place in an alternate

Pathao Pharma app for online medicine delivery

VERONICA GOMES

In association Lazz Pharma and Tamanna Pharmacy, Pathao Pharma is joining the online medicine delivery service as of July 15th 2020. Through the Pathao App, customers can order prescribed medicine in less than 40 mins by simply uploading a picture of their prescription on the app. As for now, Pathao has been running pilot programs in places like Bashundhara and Uttara. So far the pilot tests have generated positive results, with 50-70 orders a day.

Pathao Pharma claims to have ensured order efficiency and promptness in the service with the use of PharmaOS, an integrated software platform developed completely inhouse. Moreover, it integrates personalisation by allowing customers to 'order again' with a single tap from its order log, provides real-time updates of medicine and rider availability and allows both cash or digital transactions for wider user accessibility.



Instagram's experimenting putting all Stories on one page

Qualcomm launches new smartwatch chips for wearables



EDITOR'S NOTE

Less is more for survival

2020 is that resounding slap humanity needed to wake up. Luxury has been redefined. Your designer shoes are now less in demand than a cloth facemask. Getting a spa day is out of the question. We want medicines delivered to our doorstep. That's the service we can't be without now. Priorities are changing.

With that ethos, we delve right into clearing up our trusty work desk for a cleaner, leaner more efficient setup. And we tackle head-on how overpopulation is slowly pushing us off the edge (figuratively that is, don't want to encourage flat-earthers).

And when all said and done, we head up to the roof to experiment with photography. There's fewer options. And that tickles the creative to bring out more. Do more with less.

-Ehsanur Raza Ronny, Editor



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Facebook shuts down Hobbi, their app for personal projects

NEXT STEP

NSU Startups Next: A platform to set ideas free

NOMROTA SARKER

Fahad is a dreamer, dreaming to run a business with his team someday. Those like him may have an excellent idea that needs a lot of support in its early stages, including expert mentors, contacts, resources, and capital for business. But for them, the process to acquire it all has no clear pathway. For today's startups, one of the best ways to get on the path to funding and success is to join incubation programs, Fahad read in an article. It sounds difficult, but it is surely possible, thought Fahad, so he set off to find a program that could help him. **To the rescue of Fahad**

Like Fahad, many aspiring entrepreneurs with big dreams and ideas only need a little push from the right end. For this, incubation programs-or "incubators" exist to provide the necessary financial, professional and technical support. Entrepreneurs learn from experienced executives, test their business model, and gain industry credibility from the program's prestige. They are programs designed to accelerate the growth of fleshing out one's ideas, testing the market and giving wings to one's ideas so that so it can fly. Much to the delight of entrepreneurs with big ideas, North South University (NSU), Bangladesh's leading private university, has just launched its own incubator, NSU Startups Next (NSUSN). The program is designed to inspire innovation and support founders who want to scale their startups. At NSUSN, founders will learn from experts. form strong connections with those in the startup ecosystem and build a network, to create strong foundations for the rest of their journey as entrepreneurs. About NSU Startups Next

NSUSN involves collaborations with

academicians, stakeholders, and industry experts. The program will nurture the entrepreneurship spirit and assist young founders. The program kicked off on 29th June from NSUSN's Facebook page, where Zunaid Ahmed Palak MP, Honorable State Minister of ICT Division, was the Chief Guest. The advisory committee of NSUSN includes Professor Atiqul Islam (Vice-Chancellor of NSU), Benajir Ahmed (Chairman of NSU Board of Trustees) and others, including the deans of NSU's schools. The external members include Rahat Ahmed (Founding Partner & CEO, Anchorless Bangladesh), who also serves a Senior Advisor to the program, Tina Jabeen (Investment Advisor, ICT Division, Government of Bangladesh), Hussain M Elius (Co-founder & CEO, Pathao) and others accomplished in their respective fields.

Zunaid Ahmed Palak MP at the launch: "I really applaud North South University to launch such a timely initiative. I believe this program can inspire young founders to believe in their ideas and steer it in the right direction with the support from this incubator program. We'll be happy to provide all kinds of support to this program since it will help future leaders to grow their startups into scalable businesses, steering our economy forward." With an experienced and expert panel for guidance, startups should expect to thrive with the resources provided

panel studded with industry experts and investors as judges. In the incubation phase, the top teams will go through 3.5 months of the incubation process consisting of weekly thematic sessions for business building and one-on-one sessions with mentors and be offered financial support. After the successful completion of the incubation phase, the teams will present their pitches in front of a panel of investors and experts. The best startups will be selected based on the pitch and their progress throughout the program. The winners will be the proud alumni of the NSU Startups Next and will be given access to additional funding channels to scale their operations. Give wings to your ideas

"NSUSN's idea is to take ideas out of the classrooms to the boardrooms. Our platform will facilitate and support



The next big idea is yours

by NSUSN to ultimately embark on the journey of success.

The 'Who' and 'How Whether you just have an idea, have gone to market or you are on the path to getting funded, this is an ideal platform for you. Your startup is eligible as long as one of the co-founders are an NSU student, alum or faculty member. The program consists of four steps: online submissions, selection and onboarding, incubation, and graduation. During the initial online submission phase, applicants will need to fill out the form on the website and answer some questions about their idea, market, business model, and team. It is advised to be fearlessly authentic and simple in describing the idea and your

motivations. Applications will close on

August 8th. Shortlisted participants will

then be invited to pitch to the selection

early-stage startups, with formal training, practical skill development, and exciting opportunities to grow," said Professor Atiqul Islam, NSU's Vice-Chancellor. This program is not only designed to incubate but also to set the ideas free, providing opportunities that accelerate growth. If you're an aspiring entrepreneur with an idea like Fahad, or if you know a Fahad, visit the website of NSU Startups Next or simply scan the QR Code for more information. Stay updated about the program from the official Facebook page of NSU Startups Next and attend more informative webinars hosted by the team

Applications close on the 8th of August. "Ping!" goes Fahad's phone. Several of his friends have sent him a message: "Check out nsustartupsnext.com... it's exactly what you've been looking for!"













TOGGLE 3

Seven 4x4s that will make you rethink that sportscar poster

Petrolheads define their era with particular sportscars on their childhood walls. 90's kids have the Lamborghini Countach, 2000s have the Mclaren F1 and current ones have a Nissan GTR. Trucks and SUVs don't guite often make it to a literal wall of fame. But times are changing and so are the tastes. Here are the latest 4x4 trucks and SUVs that are providing the fizz for petrolheads. Some are stranger than others.



FORD RANGER RAPTOR

When Ford re-introduced the Ranger in the US, they claimed there are no plans to make a Raptor variant. What they didn't say is that they already made one, just for the rest of the world. The Ranger Raptor is a baby F-150 Raptor for those of us who can't afford the big American full-size pickup truck. Albeit instead of a V8, you get a 2.0-liter diesel, making 213 hp and 368 lb-ft of torque. Still of all the cars on this list, this is the only one you can buy in Bangladesh. Just walk up to an AG motors showroom to pre-order one.

RAHBAR AL HAQ

INEOS GRENADIER

What happens when your favorite vehicle goes out of production? Well, if vou are a British billionaire, vou build a better version of it. The Grenadier is the brainchild of one Jim Ratcliffe, chemicals magnate, car enthusiast, and the 5th richest man in the UK. As the story goes, he initially approached Jaguar-Land Rover (JLR) to buy the tooling for the old Defender, but when refused, he decided to make his own. His reimagined Defender, which took three years to develop, is sitting on a Toyota sourced ladder frame and running on a BMW powertrain. Production to start around late 2021 in a new factory in Bridgend, and according to Ineos, won't be cheap.



LAND ROVER DEFENDER 110

Speaking for JLR, they rolled out their own updated the Defender a few months ago. The reception to it has been mixed, as its monocoque construction, soft panel edges and leather upholstery means it lacks the rugged no-nonsense look the old Defender. There is a method behind this madness though. JLR wants to make the

profit and building a car that caters to a small niche market isn't a wise business investment. The new Defender, despite its "soft" looks, it a versatile off-roader, capable of wading 900mm of water while keeping its occupants dry and comfortable. And did we mention you can have it with a front bench seat?





FORD BRONCO

Moving on to the other side of the pond to another cult classic, the blue oval has finally got around their plans to bring back the Bronco. Although we are still three days away from its official debut, there have been enough leaks for us to justify adding it to this list. The new Bronco will be a body-on-frame design based on the Ranger platform, with a removable roof, sharp edges, and a solid rear axle. Ford describes it as a "nocompromise midsize 4x4 utility for thrillseekers," and plans to directly compete with the Jeep market. It seems like the rebellious British colony is about to out-Defender the new Defender, though we have to wait just a little bit to know for



NIKOLA BADGER Switching from conventional gas guzzlers

to alternative energy, this Badger is the first of its kind. The truck a hydrogen fuel cell/electric hybrid, meaning the only byproduct coming out of its engine is pure water. Amusingly, Nikola's founder, Trevor Milton, claims the only reason they are making the Badger is of the Cyberetruck, whose lack of 'ascetics' compelled them to make a good looking EV truck. Whatever their reason, it means we are getting a conventional-looking truck with 906bhp and 980 lb-ft of torque, with a 0-100 of 2.9 seconds. We are certainly not complaining.

SHIFT



HONORABLE MENTIONS: RIVIAN R1T AND TESLA CYBERTRUCK Speaking of alternate power, we must mention these two. The only thing these two have in common is the fact that they both are electric. On the one



hand, we have the Rivian R1T. A stylish eco-friendly lifestyle truck, designed for young couples who like to adventure in the woods. On the other hand, we have a Cybertruck, which we have no idea about. Is the next phase of automotive design, a Mars rover for planet Earth, or one of the prototype armored vehicle Elon developing to outfit his secret clone army? We don't know. And to be perfectly honest, we are not sure we want to know.



from overpopulation.

PULLING DOWN POVERTY



NOW YOU KNOW

Super Select 4WD - Robust handling in all conditions

To adapt to ever-changing consumer needs, modern 4WD systems have become increasingly capable and sophisticated. Systems such as the Super Select 4WD -found in the Mitsubishi L200 pickup truck-, are capable of managing the power and braking to each individual wheel as well . This system ensures the truck will always have maximum stability and traction, whether it is on gravel, mud/snow, sand or rock. All the user needs to do is turn the selector dial.



Fighting the good fight against overpopulation fallouts with fabulous technology

SADMAN SAKIB PANTHO

From climate change to the ongoing pandemic, overpopulation is deeply rooted at the cause of many global issues and crises. While organizations and governments are working to research and implement policies to combat overpopulation, innovations, and technology are constantly being leveraged across the globe to combat the increasing number of problems that are stemming

Poverty is one of the main causes behind overpopulation and overpopulation, in turn, makes poverty more pervasive. Technology is playing a crucial role in bringing people out of crippling poverty. The World Bank is creating digital versions of educational content in local languages and in line with local curricula to make education more interactive in middle and low-income countries around the globe. In Africa, nonprofit EdTech onebillon is developing educational software for reading and numeracy in the child's own language. While the effectiveness of microcredit is debatable and controversial, it has without a doubt made a difference in the lives of the poor.

Mobile phones and mobile banking services have made microcredit services widely available to the poor, especially those living in rural areas. In Bangladesh, a large portion of the poor lives in rural areas many of whom are farmers. Last year, *Khamar-e*, an AgriTech startup, received seed funding from the ICT division to use mobile phone-driven IoT to provide farmers with data, resources, and training so that they can achieve the most profit from cattle farming.

KEEPING CLIMATE CHANGE IN CHECK

Overpopulation is a key factor behind increased environmental pollution. deforestation, and consequently climate change. Corporations around the world are investing in blockchain technologies to reduce carbon emissions and deforestation. In order to preserve forests, drone technology is being extensively used to track and monitor vegetation regrowth. *PlasticBank* is an initiative that is empowering recycling ecosystems in coastal communities, repurposing recycled plastic for reintroduction into industries, and incentivizing recycling through rewards and transparent

blockchains. To promote responsible carbon consumption, companies such as EnergiToken and CarbonX are leveraging blockchain technology to provide credit rewards.

FIGHTING HUNGER AND MALNUTRITION

Overpopulation means a nation or region has more mouths to feed. Hunger and malnutrition are serious problems plaguing the world. Agricultural scientists are constantly using biotechnology to come up with new, nutrient-enriched varieties. Even in the 1980s, Vietnam was a hungry nation. And today, Vietnamese farmers are using GPS technology and moisture sensors to overcome traditional challenges to agriculture. *Agro-climate* Information Services (ACIS) - aimed at promoting South Asian women farmers, AloWeather, Green Coffee and Specialize Expert System for Agro-Meteorological Early Warning (RIMES-SESAME) are some of the AgriTech initiatives across Asia working to promote sustainable and environment-friendly agriculture. Farmers are being trained to use digital technology to access weather data so that they can have more profitable produce.

PREVENTING PANDEMICS

With the population of the world increasing exponentially, researchers and health experts have been warning us for a long time that a pandemic is not a matter of "why?" but rather "when?" And we're seeing the consequences firsthand right now. To prevent such global health crises, big data analytics and 5G will play a huge role in the coming years. Tech giants like Facebook and Google house enormous amounts of user data. As a part of their Data for Good program, Facebook is providing research firms around the globe user-movement data while ensuring users' anonymity. The large-scale analysis of these data can not only help identify pandemic hotspots within a community but can also help keep track of transmissions. As a result, the authorities can take steps to prevent the largescale spread of disease. The Global Epidemic Prevention Platform (GEPP) leverages 5G to use mobile operators to track infected individuals and to inform others in their vicinity. This has proven to be invaluable for South Korea in its early success against the pandemic.



Fugaku vs COVID: The Fast and the Fatal

OROBI BAKHTIAR

With over nine million infected and nearly half a million lives lost, the COVID-19 pandemic has seized the world's attention for several months. It has also dominated the supercomputing sector, with COVID-related research receiving major allocations on nearly every research supercomputer in the world. A Japanese supercomputer that has been named the world's fastest is using its extraordinary capacity to identify potential treatments for the Coronavirus. Japan regained the top spot for the first time since 2011, ending years of US and Chinese dominance on the TOP500 site, which tracks the evolution of computer processing power.

Its Fugaku supercomputer can perform more than 415 quadrillion computations a second, 2.8 times faster than the Summit system developed by the Oak Ridge National Laboratory in the US, which held the title when the twiceyearly rankings were last published in November. Developed over the past six years by the Japanese technology giant Fujitsu and Riken, a government-backed research institute in the western city of Kobe, Fugaku includes 150,000 highperformance processing units and can test thousands of substances a week. Powered by chips from SoftBank-owned Arm, the Japanese supercomputer knocked Summit into second place. Sierra, another USbuilt system, took third place, and two supercomputers developed by Chinese national research institutes, Sunway TaihuLight and Tianhe-2A, rounded out the top five.

Fugaku — which is another name for Mount Fuji — is scheduled to be operating at full capacity next year.The leading-edge technology developed for Fugaku will hopefully "contribute to major advances on difficult social challenges such as Covid-19," said Satoshi Matsuoka, director of the Riken Center for Computational Science. The Japanese supercomputer is already being used on an experimental basis for research on Covid-19, including on diagnostics, therapeutics, and simulations of the spread of the virus.

Fugaku, which can crunch through three months' worth of typical computing before noon, is also combing through a database of 2,000 drugs to ferret out which formulations might be used to mitigate the symptoms of COVID-19. The search has already turned up some promising potential treatments that have not yet been considered by medical scientists. It has already run simulations on how respiratory droplets spread in partitioned office spaces and on packed trains when the carriage windows are open. The team is also working on a molecular simulation of how the fatal virus attaches to human cells — a valuable tool for diagnostics and drug discovery.

"I hope that the cutting-edge IT developed for Fugaku will contribute to major advances on difficult social challenges such as Covid-19," said Satoshi Matsuoka, the head of Riken's centre for computational science.



Using drones against COVID-19

JINAT JAHAN KHAN

Cutting-edge technologies have been deployed to fight the spread of COVID-19 since the beginning of this pandemic. Drones have become one of the biggest allies to boost mass surveillance and to ensure social distancing all over the world. Public health officials, security forces and other officials in different countries such as China, India, Switzerland, and many more are using drones for urging people to avoid trafficked areas to deter potential infection. We take a look at how drones are coming handy in the fight against the pandemic and the scopes of using drones in Bangladesh.

SURVEILLANCE

To reduce people-to-people contact and the risk of getting infected to police officials and other staff, drones enable monitoring vast swathe of an area without physical engagement. This trend began in China and now this technology is being used by law enforcing authorities in many countries to make citizens aware about the government guidelines on lockdown and social distancing and to record the movement of violators. But the use of drones for surveillance raises the questions whether they do a privacy breach or violate property rights.

In Bangladesh, only the Chattagram

Metropolitan Police (CMP) has taken such an initiative to monitor unnecessary gatherings and identify the culprits, but the tech is being used in a very limited scope.

DELIVERY SERVICES

Social distancing or quarantine life cannot confirm the protection from coronavirus if people go out to buy essentials or come in close contact with deliverymen. On the other hand, doctors and hospitals now need medical supplies in a safer and faster way more than ever. Drones can make this type of lengthy supply chain short with a maximum 60 to 100 miles per hour and absolutely no traffic to weave through. These drones are more relevant in the red zones of COVID-19 where outside physical contact should be minimized as much as possible.

DISINFECTANT SPRAYING

According to DJI (the world's largest drone making company), a typical spraying UAV can carry around 16 litre of disinfectant and it can cover 100,000 square meter area per hour. Spraying disinfectants with drones is 50 times faster than traditional methods. These spraying drones are quite cheaper than the other drones and easy to handle. They can be mobilized easily and they also reduce the risk of health and sanitation workers getting exposed to both the coronavirus and the chemical disinfectants. Countries like Indonesia, India, Chile, Colombia, the Philippines, and the UAE have successfully used these disinfecting drones.

TEMPERATURE CHECK

During the peak of the outbreak of coronavirus, Chinese authorities used thermal drones to measure people's temperature in quarantine. At that time, the situation was out of control and it was not possible to test the individuals of this vast population. These drones UAVs have thermal scanners to detect the heat or temperature. However, thermal drones are being developed so that these can specifically detect fever and also detect heart rate, respiratory rate, sneezing. Draganfly is already working on such drones called 'Pandemic drones'. However, there are many things that need to be clarified by this company and privacy concerns are expressed by the experts over its claims.

IS THERE ANY SCOPE OF USING DRONES IN BANGLADESH AMID THIS PANDEMIC?

Abul Al Arabi, a Robotics researcher at

BUET, said, "It's been quite a long time since the drone technology has become feasible. But when it comes to the point of realizing drones in Bangladesh amid such a pandemic, three core problems may appear. The first obstacle is due to the nature of drones as these are best suitable for outdoor and open-space applications, and not for congested areas like ours. The second one is due to our existing infrastructures, which is not orderly oriented. And the third problem is the monitoring issue because our existing AI and machine-learning tools are not well-developed to handle such an advanced system. I am optimistic that, concerning highways or fields, drone tech may play a vital role and will be efficient. But cases like the shopping malls, markets, or local areas which are the most vital places for social distancing to be maintained properly may induce collapse in executing drones for securing social distancing. Moreover, these types of congested areas introduce another issue, which is hazards from drones and hazard to drone itself. Hence, such scenarios will require much more research, effort, and time. For the time being, hopefully, CCTV footage will play a big role in such cases.'

8 TOGGLE

TO-DO LIST

Shooting perfect rooftop photos this quarantine

SADMAN SAKIB PANTHO

If you are an avid outdoor photographer or just someone who dabbles in it, this quarantine must be making it really difficult for you to indulge in your interests. But when you have a rooftop to go to, do you even need to go outside?



RAIN AND WATERDROPS

The frequent rainfalls make this the perfect weather to take photos in the rain and afterwards. You can take a person to the roof to act as the subject. If you have a DSLR or mirrorless camera, be sure to use a waterproof case or prepare a makeshift raincoat for it. The starting point of the shutter speed should be 1/250 and never go at or below 1/125. Use a higher ISO value, preferably 1600, to cope with low light in cloudy weather. This will also help you maintain a faster shutter speed to catch the raindrops. Start with an f8 aperture. Try to keep any light source behind your subject at night or use manual flash. For capturing water dripping from a place after the rain, you should use an ISO of 100-200, exposure time of .05 seconds and f/14 aperture. If you take photos on your smartphone, a macro lens will be really helpful to capture reflections in water droplets or water dripping from a leaf. Photos of someone with an umbrella or jumping onto a puddle can come out amazing on phones.

LIGHTNING

It's the perfect time to capture lightning in your photos courtesy of the Kalbaishakhi storms. The best time to shoot is at night. For a DSLR, put your camera into Bulb mode. Use an ISO of 100-200 and start with an f/5.6 aperture. As there are fewer chances of overexposure, you can let the shutter remain open for 30 to 120 seconds. If you use a smartphone, use one with manual settings. Use an ISO of 200 and be sure to not use a flash. Use a shutter speed of 8 seconds and be sure to keep the phone steady. You can use a shorter shutter speed if the photos come out too bright. Adjust the white balance to 4100K and the manual focus to just below infinity. A timer will help you to avoid motion blur.





BIRDS

Birds are back in the city. While taking stills, focus on the birds' eyes. For a DSLR, f2.8 or f4 apertures should be perfect. Choose a faster shutter speed and complementary ISO for sharp photos. For action shots, continuous focus mode should be used, with a shutter speed of 1/1000. If you are using a smartphone, try not to zoom in. Feeding birds is the best way to make them come closer to you. Use the grid feature in the camera app and divide a shot into thirds both vertically and horizontally. Then place the subject either where these lines intersect or within one of the "thirds". This creates photos that are well-focused and not empty.

