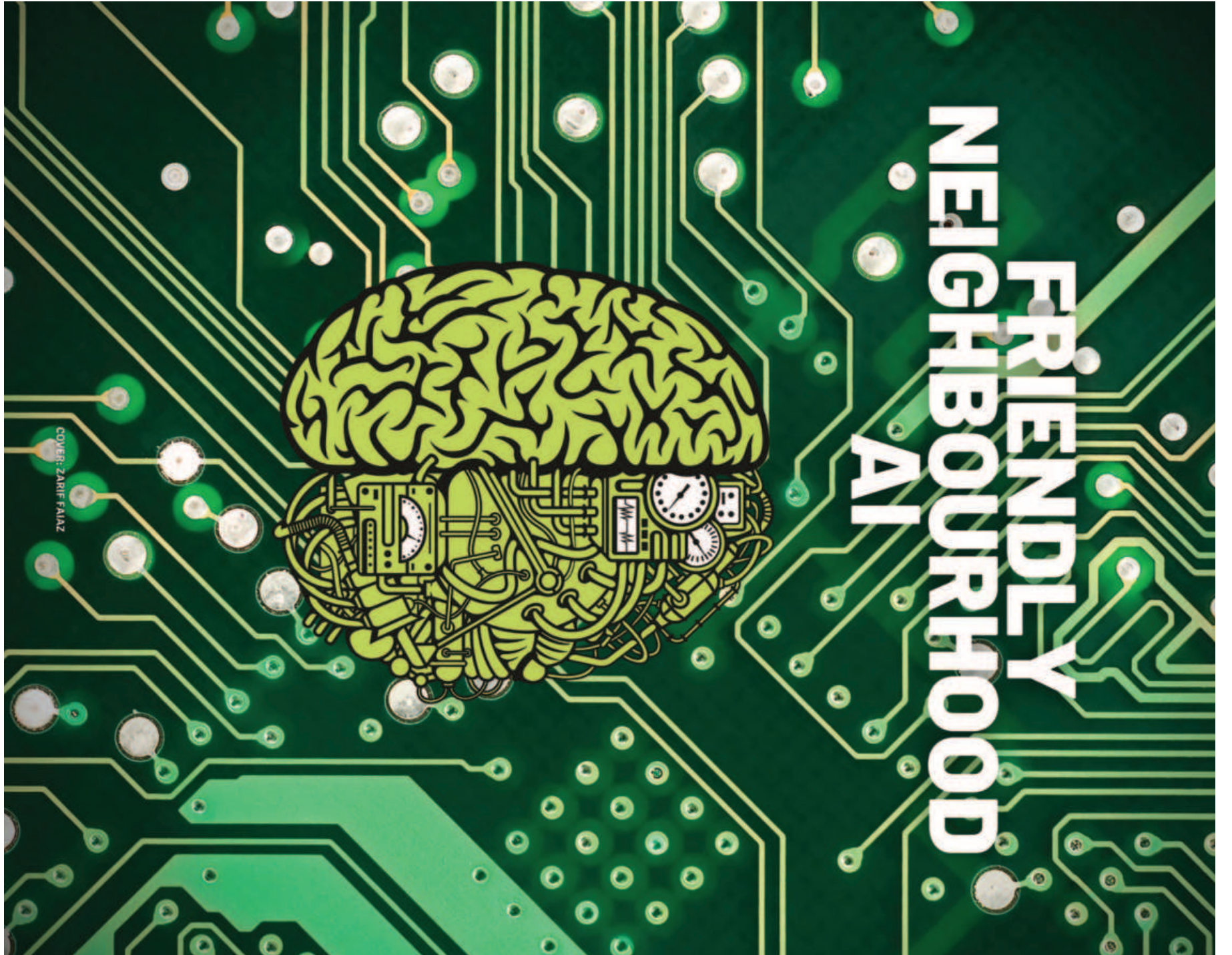


TOGGLE

WEEKEND LIVING IN THE DIGITAL AGE

A publication of *The Daily Star*



COVER: ZARIF FAIAZ



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OpenAI launches Incognito Mode for ChatGPT



OpenAI, the San Francisco-based start-up behind the hit chatbot ChatGPT, has introduced an 'incognito mode' that will not save users' conversation history or use it to improve artificial intelligence, as per a recent announcement by the company. This new feature comes amid growing scrutiny over how ChatGPT and other chatbots manage users' data,

which is commonly used to train AI. Italy recently banned ChatGPT for possible privacy violations, while France and Spain have also begun probing the service.

The new product release allows users to switch off "Chat History & Training" in their settings and export their data. Nicholas Turley, OpenAI's product officer, likened this

to an internet browser's incognito mode, with the company retaining conversations for 30 days to monitor for abuse before permanently deleting them. In addition, OpenAI plans to launch a "ChatGPT Business" subscription in the coming months with additional data controls. This subscription will not use conversations for AI model training by default.

You can now use WhatsApp on four phones at once

As per an official announcement by WhatsApp, you can now add a phone number and link it to your account to be used on multiple smartphones, up to four, simultaneously. However, you will need to log in to your primary phone every 14 days to keep the linked devices connected to your WhatsApp account.

To access this feature, go to 'More options' and then 'Link to existing account' in the new phone you want to link your WhatsApp account. Once you click the option, you will see a QR code you need to scan with your primary phone. This new feature will let you pick up calls and messages on your WhatsApp account from any of the four smartphones that you have linked your account to.

Previously, this multi-feature functionality in WhatsApp was supported in Android tablets and computer browsers alongside one primary phone. This is the first time WhatsApp has expanded this feature to support multiple phones being linked with one phone number.

You can now do 1080p video calls on Google Meet

According to Google's Workspace Updates blog post, full HD resolution is available on the web version of Google Meet when using a computer with a 1080p camera. You will also need enough performance capability on both the participants' computers to properly run the full HD online meeting.

This new feature is turned off by default. To turn it on, simply click on

the three dots on the top-right section of a video call, which will prompt you to let people see you in full HD. Click 'turn on 1080p' from there. 1080p video calling will be available to Google Workspace Business Standard, Business Plus, and a few other editions. It will not be available to users with Google Workspace Essentials, Business Starter, Education Fundamentals, or those with personal Google Accounts.

Nokia reportedly launching a new smartphone

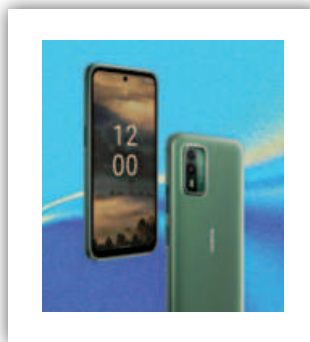
According to WinFuture and Android Authority, the new high-end smartphone from Nokia, the XR21 - the successor to the XR20 - is said to be equipped with a budget-tier Snapdragon 695 chipset, offering an upgrade in CPU and a smaller manufacturing process compared to its predecessor. The device will also feature a 6.49-inch FHD+ LCD screen with a 120Hz refresh rate and Gorilla Glass Victus protection, 6GB of RAM, and 128GB of storage.

In terms of camera specifications, the Nokia XR21 will feature a 64MP main camera and an 8MP telephoto camera with up to 8x digital zoom.

However, neither camera will offer optical stabilisation hardware, and the Snapdragon 695 chipset doesn't support 4K recording. The device will also feature a 16MP camera for selfies and video calls.

The Nokia XR21 is reportedly set to be available in black and green colour options, featuring a plastic rear cover and thick bezels similar to its predecessor. Other details about the device include a 3.5mm port, eSIM support, an extra

hardware key on the left-hand side, presumably for Google Assistant, and a top-mounted customisable button, similar to the older device.



EDITOR'S NOTE

The everyday A(I)ssisant

The tremendous ease and comfort of ChatGPT has made a lot of jobs much easier. Of course, no AI is perfect - so you still need to know how to use it to its fullest potential. This week, for the umpteenth time, we talk about ChatGPT, focusing more on how it can make our daily work faster and easier, but also how we should be wary about using it.

Check out the Cover Story for our thoughts on ChatGPT's role in modern job search, and in Bytes, a handy tips and list of tools to detect AI-generated text. As for other pages, find out some Tech Tips on how to keep your phone cool during this heated summer, and a Spotlight on Monash University's autonomous vehicle project - that runs on VR!

As always, stay safe everyone. Until next week.

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Meet the world's first AI speech-to-speech translation tool



Interprefy, a Zurich-based provider of translation services, has claimed to have launched the world's first AI speech-to-speech translation system. Called Aivia, this AI provides affordable real-time translation with flexibility and support to ensure a seamless multilingual user experience, as per the media company The Next Web.

In a The Next Web exclusive,

Oddmund Braaten, Interprefy's CEO, said that he believes Aivia is the most accurate and flexible AI speech translator available in the market today. The service translates speech into audio and captions at the touch of a button, using three main AI technologies: automatic speech recognition, machine translation, and synthetic voice generation. Aivia is designed to address

two shortcomings in real-time speech translation: inconsistent results and the needs of event organisers.

According to The Next Web report, initially available in 24 languages and regional accents, both in-person audiences and platforms such as Microsoft Teams, Zoom, and ON24 can use the service. Interprefy plans to add more languages in the near future.

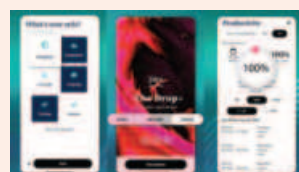
Looking to stay productive? Check out these planning apps

As technology continues to advance, there is no shortage of productivity planning apps available to help individuals stay organised and on track. With so many options on the market, it can be overwhelming to determine which apps are worth investing time and money into. To help narrow down the field, we've compiled a list of the top productivity planning apps for individuals looking to maximise their efficiency.

Trello

Trello is a project management app that utilises a visual system of boards, lists, and cards to help users organise tasks and projects. Each card can be customised with due dates, checklists, and attachments, making it easy to keep track of all necessary

information in one place. Trello is especially useful for team collaboration, as multiple users can be added to a board and updates can be made in real-time. With integrations for popular apps such as Slack and Google Drive, Trello is a comprehensive project management solution.



Focus@Will

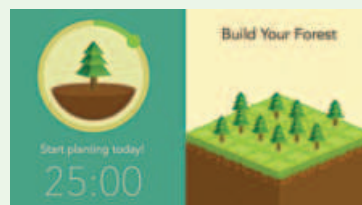
Focus@Will is a productivity app that provides background music specifically designed to improve focus and concentration. The app includes a variety of playlists based on different types of

music, such as classical or electronic, and uses a proprietary algorithm to create a personalised listening experience. Focus@Will is particularly useful for individuals who struggle to concentrate in noisy or distracting environments.

RescueTime

RescueTime is a time-tracking app that monitors how users spend their time on their devices. The app runs in the background and provides detailed reports on which apps and websites are being used and for how

long. RescueTime also allows users to set goals and alerts to help limit time spent on unproductive activities. With the ability to track time across multiple devices, RescueTime provides a comprehensive picture of how time is spent throughout the day.



Forest

Forest is a unique productivity app that utilises a gamified approach to help users stay focused. The app allows users to plant virtual trees, which grow as long as the user stays focused on their task. If the user exits the app before the tree

has fully grown, the tree dies. Forest also includes a social component, allowing users to compete with friends to see who can grow the most trees. With its playful design and positive reinforcement, Forest is a fun and effective tool for improving productivity.

Evernote

Evernote is a note-taking app that allows users to create and organise notes, to-do lists, and reminders. The app includes features such as search functionality and the ability to annotate and attach

files, making it a versatile tool for both personal and professional use. Evernote also includes integrations with popular apps such as Google Drive and Slack, allowing for seamless integration into existing workflows.



Notion

Notion is a productivity app that combines task management, note-taking, and project planning into one platform. With a modular design, users can customise their workspace to fit their specific needs, allowing for a personalised

and intuitive experience. Notion also includes a database feature, which can be used to create and track projects, tasks, and notes. With its versatility and customisation options, Notion is a comprehensive solution for individuals looking to streamline their productivity.



Todoist

Todoist is a task management app that allows users to create projects, assign tasks, and set due dates. With a sleek and user-friendly interface, Todoist makes it easy to organise tasks into categories and subcategories. The app also includes features such as a priority system and reminders to ensure important tasks are completed on time. Todoist is available on both desktop and mobile devices, making it a versatile choice for individuals on the go.



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Glanza V: the hot hatch from the late 90s

ABRAR SHAREQUE KHAN



The year is 1996: Princess Diana and Prince Charles got divorced, NASA launched their space shuttle mission, and Toyota, on the other hand, built a pocket rocket. We've all seen the Toyota Starlet, a normal family hatchback for generations in families. However, that same year, Toyota decided to divide the Starlet into three categories: the daily beater and base model Reflect - which we mostly see on the roads, the sporty pocket rocket Glanza V, and the most luxurious model out of the bunch, the Carat, which is also rare but not as much as the Glanza V.

Coming back to the Glanza, it has two variants: the Glanza S and the Glanza V, with the key difference being the engine. The Glanza S came with a naturally aspirated 1.3-litre 4EFE engine, and the Glanza V came with a 1.3-litre turbocharged 4EFTE engine. Both are mechanically similar except for the fact that the 4EFTE is turbocharged with a C56 - a 5-speed manual gearbox with LSD. The Glanza was sold exclusively in Japan but later imported to other countries.

This particular Glanza V, which is also one of the freshest of its kind, is owned by local car enthusiast Momtahn Hassan Ingit. The car has seen its fair share of transformation. It was restored from the ground up, with almost each and every panel replaced and done the right way. Even the rain shade, glasses and door trims were replaced. It's been more than 5 years since the car has been restored, but still, face to face, you won't be able to tell if any work was done to it. With brand-new headlights and tail lights, it's almost as if the car just came out of the factory. The sporty design of the Glanza with the side skirts, trunk spoiler and hood scoop make it as evergreen as it can get.

It is not just the exterior. The interior is also in pristine condition. With an old-school dash, three-spoke GT steering

wheel and bolstered seats with genuine fabric from Bride in the middle, the Glanza gives off an old-school vibe. But the power windows, power steering and entertainment system give it a hint of something way ahead of its time. In this case, the Greddy ProFec boost controller, Zeitronix zt3 AFR gauge, Works boost meter and Works fuel pressure regulator gauge enhance that feel even further.

These aren't just for show; with the Greddy ProFec boost controller, the boost of the turbo can be controlled and set to either low boost or high boost mode. The boost can be changed manually without the boost controller, but that's like going to the workshop every time you want



change it. Since it has a turbocharged engine, it is a very fuel-sensitive car, especially in a country like Bangladesh where there is no certainty of good fuel. This is where the Zeitronix AFR gauge comes into play; it will tell you if the car is running rich or lean.

Even though, from the inside, it may seem like a lot is going on in terms of performance, this Glanza is almost essentially stock with a few exceptions. The main two differences between a regular Glanza V and this one are that it has a C52 with LSD and a 5-speed gearbox, which is quite similar to the C56; while a regular Glanza V has a CT9 turbo,

but this one has a CT9 hybrid turbo. The CT9 hybrid turbo provides more air and makes the boost more efficient which in turn helps it generate more boost pressure. Previously, it had an Exedy stage 2 clutch, but it was not suitable for daily driving, which is why Ingit switched back to the stock clutch. The fuel pump was changed to Tomei's 255lp fuel pump and the plugs were changed to NGK's VK20 plugs. All of these modifications make this Glanza a very OEM-esque car.

Handling-wise, this car is packed with aftermarket goodies. The shocks were replaced with brand new KYBs paired with tein tech lowering springs, giving it a lower height and a stiffer feel to the suspension. To increase the steering feedback and decrease body roll, a lot of bars along with a front anti-lift kit from Whiteline are installed, starting with a Cusco carbon fibre strut bar in the front top and in the bottom it has a 2-point lower arm from Cusco along with a sway bar from Whiteline. In the back, it has a rear strut bar from Cusco, a rear sway bar and a rear pan hard rod from Whiteline. Besides that, a brand new set of economical Yokohama Japan tyres are wrapped around the infamous rim, Fifteen 52.

According to Ingit, the Glanza V performs exceptionally well and is perfect as is. Even in low boost, the car, which weighs around 900 kg, pulls with ease, and the turbo spools at 14psi in high boost, which is entirely safe for the engine and the turbo. Ingit prefers to maintain the car's OEM plus theme and faced difficulties driving it daily with the previously installed Exedy stage 2 clutch. However, the problem has been resolved since Ingit switched back to the stock clutch. In heavy traffic conditions, the car yields an average of 10 km/l. The car gave him a boatload of memories, and he looks forward to more in the future.

Tired of applying to jobs? AI can help

Here's the hard truth: Cover letters are boring. Crafting a resume is tedious.

And you are not alone in thinking so. We have all been there: spending countless hours tailoring and designing our resumes, and writing and rewriting our cover letters for employers who ask for them. There is no point in denying that these tasks are as tedious as they get. But maybe AI can help.

With the advent of artificial intelligence tools like ChatGPT, job seekers can now delegate these tedious tasks to technology and focus on upskilling or pursuing meaningful endeavours that align with their interests.

It particularly helps when you ignore the alarm bells and start thinking of tools like ChatGPT as tools rather than T-1000s. ChatGPT is a cutting-edge language model that has been trained on massive amounts of data, enabling it to understand and respond to a wide range of questions and requests. With its advanced natural language processing capabilities, ChatGPT can analyse job postings, match them to a candidate's skills and experience, and even write customised cover letters and resumes.

Job seekers can significantly reduce the time and effort they would otherwise expend on tedious tasks like looking for job postings and filling out applications by using ChatGPT. Instead, they can put their mind on honing their professional

skills and knowledge, pursuing side projects or hobbies, or even scheduling time for much-needed self-care. Thinking of getting that pedicure? Go get it. Delegate your friendly neighbourhood ChatGPT to write a cover letter for you.

The truth is, the ability of ChatGPT to navigate large amounts of data and present key findings in a simplified chat box is one of its key advantages. Job seekers can simply provide ChatGPT with their desired job title, location, and industry instead of spending hours searching through company websites and job boards for relevant openings. The tool can then look up and compile a list of pertinent job postings with links to applications and deadlines. It is best to keep in mind that you still need to double check the information because ChatGPT is not perfect. At least not yet.

Now comes the fun part. Once a job seeker has selected a few job openings they're interested in applying for, ChatGPT can take over the application process. By analysing the job description and a candidate's skills and experience, ChatGPT can automatically generate a customised cover letter and resume that is tailored to the specific job opening.

This not only saves the job seeker time, but it also increases the chance that recruiters and hiring managers will actually receive their application. Candidates are more likely to stand out

from the crowd and land an interview if their cover letter and resume are tailored to the requirements and qualifications of the job opening.

ChatGPT can not only speed up the application process for jobs, but it can also give job seekers useful advice and insights. ChatGPT can determine areas where a candidate may need to upskill or acquire additional experience in order to be more competitive in the job market by analysing their skills and experience.

For instance, ChatGPT can suggest pertinent courses or certifications that a job seeker can take to improve their qualifications if they are interested in a particular job but lack a particular skill or certification that is necessary for the position.

Additionally, ChatGPT can offer assistance with interview preparation, including guidance on how to answer typical interview questions and techniques for emphasising one's skills and experiences in an interview.

Remember that none of these will ever replace the human touch, especially the counselling part if you are particularly interested in that part. But it can be a start-off point to gain some much needed confidence boost for your job application.

Nevertheless, some may be hesitant to entrust such an important task as job searching and application to a

machine. But the reality is that artificial intelligence tools like ChatGPT are becoming increasingly sophisticated and reliable. In fact, many companies and recruiters are already using AI-powered tools to streamline their hiring process and identify top candidates. And if your recruiters can use AI to recruit you, why would you hold yourself back from using AI tools to apply there.

Job seekers can level the playing field and improve their chances of landing their dream job by taking advantage of these tools. They can outsource the tiresome and time-consuming task of job searching and application to technology instead of being overburdened by it, allowing them to concentrate on upskilling, pursuing worthwhile endeavours, or just taking time for themselves.

Of course, there are still some components of the job search process, like networking and interviewing, that call for face-to-face interaction and communication. However, job seekers can free up valuable time and energy to concentrate on these more interpersonal aspects of the job search process by handing off the more time-consuming and laborious tasks to ChatGPT.

So get out there, live your life and enjoy. Come back to find your resume and cover letter ready to be sent out to your recruiters. Thank ChatGPT and move on.



ILLUSTRATION: ZARIF FAIAZ

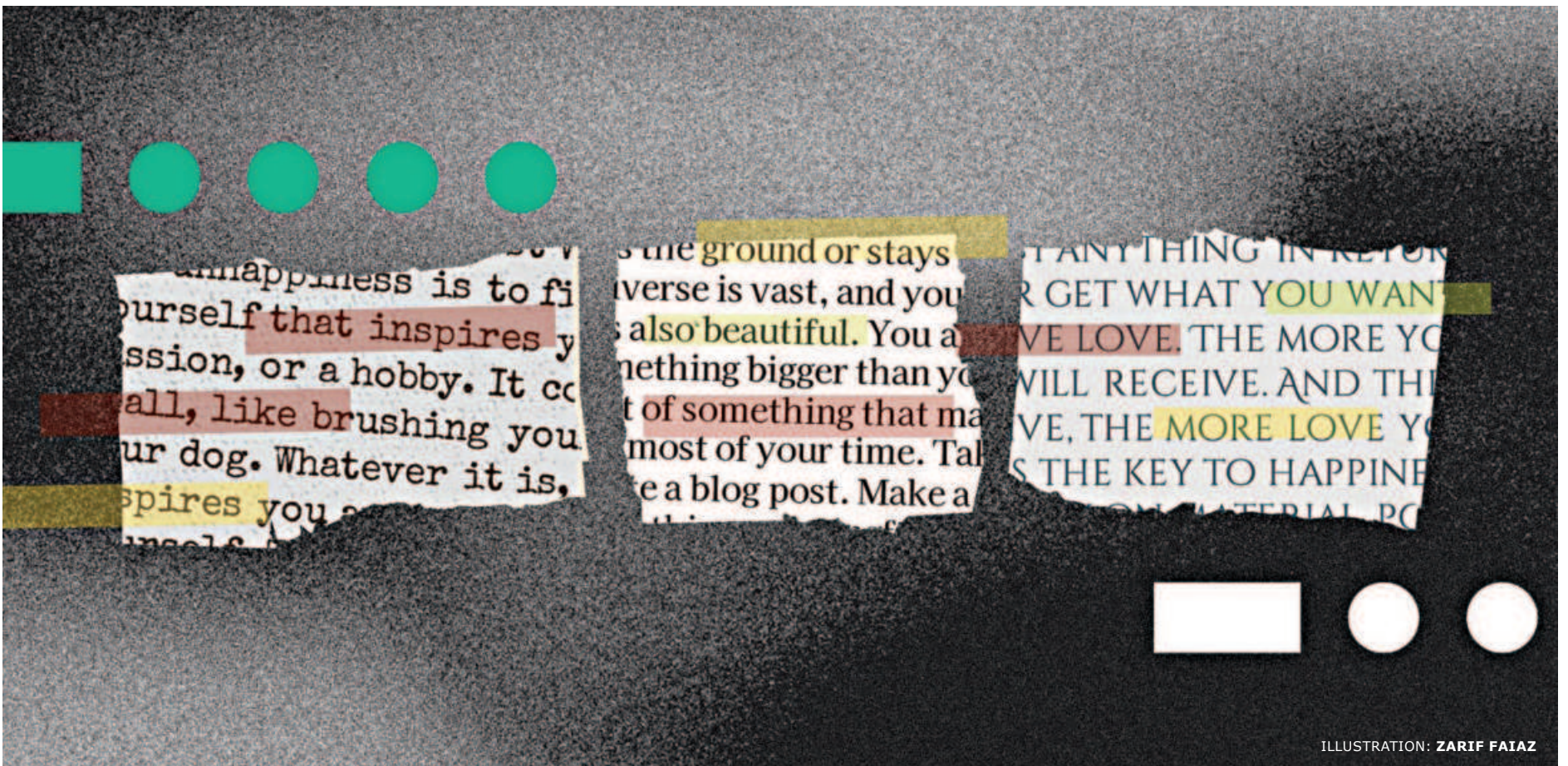


ILLUSTRATION: ZARIF FAIAZ

How to detect AI-generated text

JINAT JAHAN KHAN

With the rapid advancement of AI content generation tools such as ChatGPT, it has become increasingly tricky to determine whether a document is AI-generated or human-written. Many companies and individuals are already using AI text creation platforms to churn out relevant works of texts for a variety of professional tasks.

While the use of AI in text generations have many potential benefits across industries, like any other tool, they too may be misused in a variety of ways. To counter the misuse of AI-generated texts, there are some tools that may come handy. Keep in mind that with the rapid growth of AI systems, it is best not to expect 100% fool-proof results all the time.

Repetitive patterns and phrases

In AI-generated content, it may use the same word or the same phrase for two or three consecutive lines. If you notice any particular line or the same structure repetitively used in the particular content, it may be a sign that it is generated by AI. Even general plagiarism detection tools identify such repetitive cases, as these texts are directly copied or slightly paraphrased from different internet resources. Common words such as 'it', 'the', and 'is' tend to pop up more than often in AI-generated text.

Unusual transitions and inaccuracies

Artificial intelligence cannot think as humans do. Thus, at times, the coherence between sentences and the logical flow of human-written texts tends to be absent. AI is not able to comprehend the exact context of a creative write-up, especially

when opinions or experiences are involved. Errors in punctuation and grammar are common as well, which eventually makes the content unclear and incomprehensible. Moreover, paragraphs seem to have a disjointed structure in AI texts.

Lack of human emotions and personal experiences

One of the common traits of AI-generated texts is that it often misses the natural flow of human language. A large piece of content with a minimum level of variation can be a trait of texts written by AI. Moreover, AI writing tools are not able to display any emotion or subjective experience. They are unable to express their perspective as there is no set of rules to explain how one should feel about a thing or how to explain themselves. As such, having a flat tone or forced emotion may be a sign that it is crafted by AI. Since AI-generated text lacks such emotions, these AI generators may cover them up by using heavy and unnecessary heavy facts.

Using AI content detector tools

If the above steps don't help you as much, you can try the more 'automatic' method of detecting AI text - using AI text detector tools. There are several you can try out, from free to paid versions, all providing degrees of successful results in detecting AI-generated text in a given content.

AI text classifier

The AI classifier is released by OpenAI themselves to determine whether any text is written with AI or not. Although it does not claim to be accurate all the

time, this detector can be simple and free to check texts for a quick review. To use the AI text classifier, there is a requirement of a minimum of 1000 characters or 150-250 words. On their website, each content is labelled as 'very unlikely', 'unlikely', 'unclear', 'possibly', and 'likely' AI-generated according to the situation.

Writer.com

This AI detector is extremely simple and completely free to use. Just go to their website, paste the writing into their text box or add the URL link to analyse the whole content. It shows how much of the content is human-generated, along with a line of suggestions. For instance, if only 16% of the content is human-generated, it suggests editing the text until there is less detectable AI content. Writer.com can check up to 1500 characters at a time.

GPTZero

GPTZero, an AI-generated text analysing tool, shows the 'perplexity' and 'burstiness' scores of written content to identify whether the text is AI-generated or human-written. Here, 'perplexity' measures text randomness and 'burstiness' implies the appearance of non-common terms in any content. Human-written texts show higher perplexity scores as these are more unpredictable than AI texts. On the contrary, AI texts show lower scores. The AI-generated text also has lower burstiness scores as they have a more consistent structure. The tool is free for up to 5000 characters per document on their website. But for further access,

subscription plans need to be bought.

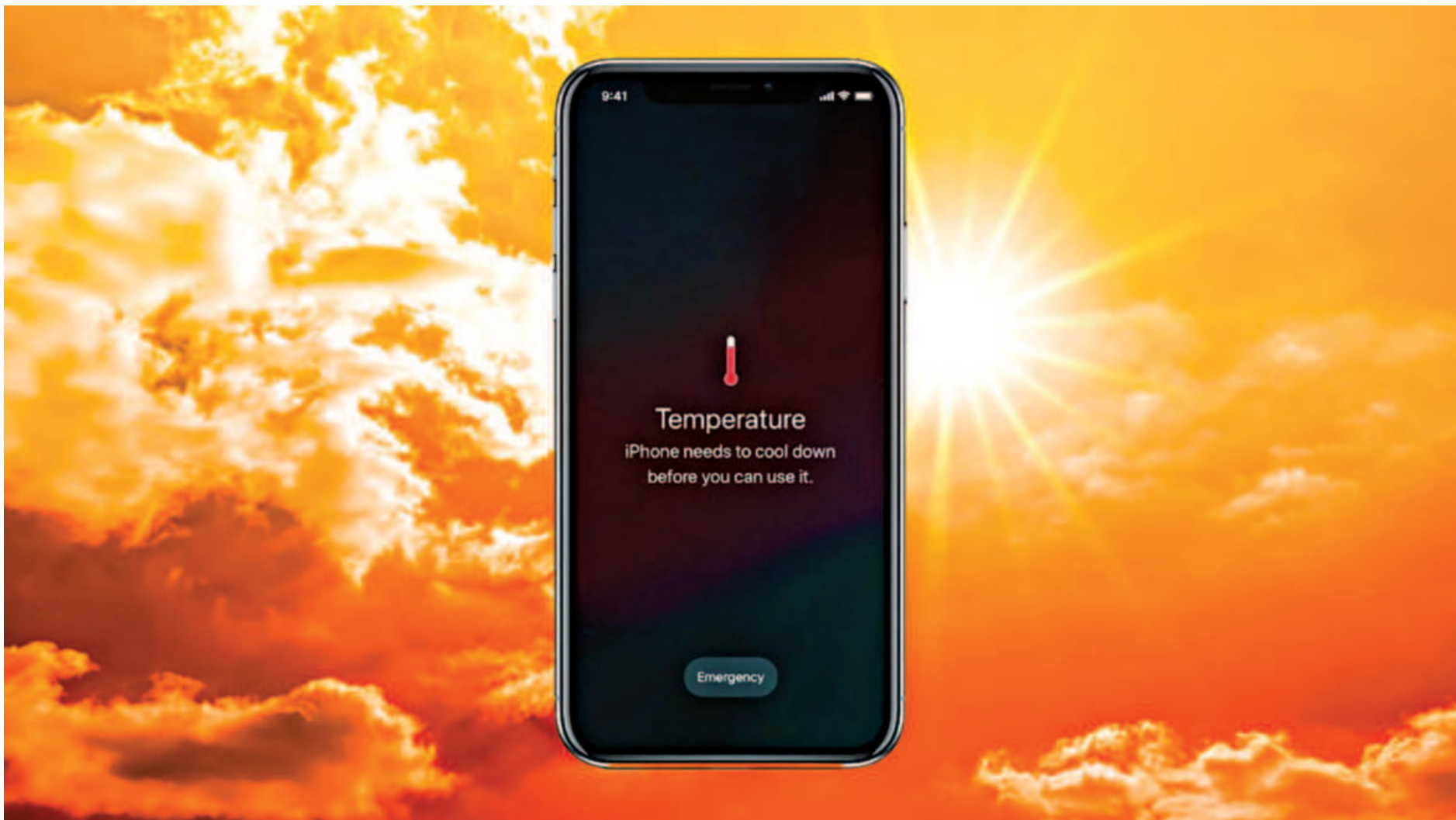
Copyleaks

Copyleaks can identify AI contents by GPT-2, GPT-3, GPT-4, ChatGPT, T5, Google Bard and Jasper. It is also able to detect mixed texts where human-written contents have been amended with AI texts. One can analyse content for free on their website or use their free Chrome extension to check content directly. Copyleaks is free but it will require a paid plan if one wants to use an API for scanning many documents in a short time.

Originality.ai

Originality.ai is, so far, one of the most accurate tools to detect AI-generated text. It can identify texts written by GPT-2, GPT-3, GPT-4 and ChatGPT. This is also the only paraphrase (Quillbot) detection tool in the market, with an accuracy of about 96% in most cases. Unfortunately, this tool does not have a free version. One needs to sign up on their website to access services, and the price is measured in terms of credit. One credit goes for \$0.01 per 100 words to detect AI-generated texts.

With an increase in AI text generation tools, there is a rise in AI detector tools. But they are very new in the market, and the results from such tools are still not 100% accurate. However, it is expected that the quality and accuracy will rise soon as the demand for such tools is at its peak. As long as you're aware of the latest AI updates and keep your eyes open for inconsistencies, you should be able to detect AI-generated text with some time.



How to keep your phone cool during heatwaves

Summer is currently upon us, with the heat getting worse every day and scorching everything we hold dear. While most of us seek respite under the cool breeze of air conditioners in our houses and offices, working outside in this unbearable heat can prove to be a Herculean task. Active smartphone users will especially find that their phones get heated and sometimes refuse to charge properly in this unbearable heatwave. As such, here are some tips to keep in mind to keep your phone cool and safe during the most intense of outside temperatures.

Keep your phone away from direct sunlight

If you're outside, it's best not to bring your phone out directly under the intense summer sunlight, as doing so can cause your phone to overheat and cause all sorts of problems. If you're a daily commuter,

keep in mind that the insides of vehicles, especially the seats of cars, can get heated during summer, so it might not be a good idea to put your phone out in your car as well.

Lower the screen brightness

The brighter the screen is, the more power your phone's battery is using, and the more battery is consumed, the more heated your phone can become. If you're outside and suddenly need to check your phone, seek nearby shade, lower the brightness of your phone's screen, and check what you need to do. Although it might be difficult to spot specific text or images under excessive sunlight, not overexerting your phone's battery will pay dividends in the long run.

Avoid excessive power consumption

Even if your phone is outside in direct sunlight or operating at maximum screen brightness, your phone can still get overheated - especially during hotter weather - if you are using it excessively. Playing high-performance video games or streaming videos for a long time can make even the latest flagships heat up. If the temperature is too high, try avoiding other power-hungry features such as Bluetooth and video camera. One big way a phone can get overheated is via shared hotspot - a feature you should consider turning off if your phone is low in battery or is heating up fast.

Turn on the power-saving mode

If, even after turning off power-hungry apps, you find that your phone is still heating up, turn on your phone's built-in power-saving mode. This mode, available in all smartphones these days, will close background apps, reduce brightness and/or enable faster screen locking. In iPhones, this feature is known as low power mode, which also turns off 5G usage if you have

the option enabled in your settings.

Remove the back cover

Most of us like using a plastic back cover on our smartphones. While these covers are good for external protection and great for adding aesthetic appeal to our beloved mobile devices, they can also cause heat to trap inside them during hot temperatures. As such, if you feel your phone is overheating really fast, you should remove the back cover and let the phone dissipate the heat on its own.

Use your phone's dedicated charger

Sometimes, smartphones can be picky about which chargers they can use the best. If you're not using the manufacturer-approved charger that came with your smartphone purchase, chances are you will face slow charging times or, even worse, your smartphone's battery might get heated. To avoid these problems, use the charger your smartphone has 'fast charging' options for, which is usually one that you would get upon the purchase. If you didn't get a charger with your purchase, a quick Google search on compatible manufacturer-approved chargers for your smartphone would help you out.

Don't force cool your phone

Even if your phone comes with the highest rating of water resistance, it is a bad idea to submerge your phone in cold water to forcibly cool it down. The same applies to leaving your phone inside a fridge or a cooler. Doing these will cause condensation to form inside your phone, which will damage the device in the long run. Keep in mind that most smartphones are built to dissipate heat on their own, so unless you are excessively using it or exposing it to a lot of heat, letting your phone cool down on its own is usually a smart choice.



Meet Monash University's VR-run autonomous vehicle project

In the current world of electric vehicles and self-driving Teslas, imagining an autonomous vehicle might not be too difficult. To put it in simple terms, an autonomous vehicle - in theory - can operate on its own without needing a human to control or command it. However, despite recent breakthroughs in autonomous technologies, there are still difficulties in maintaining a truly automatic car - as even the most advanced self-driving ones are known to crash and fail.

Monash University's Virtual Reality Autonomous Vehicle (VRAV) project - focused on research and development of autonomous vehicles - is attempting to put a different spin on the 'self-driving car' concept, by combining it with VR technology. According to Ezazul Hoque, the Project Lead for the VRAV project at Monash Connected Autonomous Vehicle (MCAV), the aforementioned project aims to refine the technology of autonomous cars using VR while addressing technical challenges and feasibility of a VR-based automatic car in modern society.

The VRAV project, in essence, is an augmented on-road driving simulator that uses autonomous vehicles in a virtual reality setting. This allows drivers, wearing a VR headset, to test their responses to traffic conditions and find out potential problems before getting on an actual vehicle. As per the Monash University website, the project received the Intelligent Transport Systems (ITS) National Research Award in 2019, and since then, has secured sponsorship support from external sources, including private companies in Australia.

"The idea of integrating virtual reality technology with autonomous vehicles provides a unique and engaging way for users to interact with the vehicle," states Ezazul. He believes that this project will help promote public awareness and interest in autonomous vehicle technologies. Since the research his team



conducts focuses on the potential benefits of autonomous vehicles, the findings can potentially increase safety on the roads, improve traffic flow and reduce environmental impact.

"Autonomous vehicles have the potential to make transportation safer, more efficient and more sustainable," shares Ezazul. He believes that by removing the human element from driving, autonomous vehicles can reduce the risk of accidents caused by human error, as well as increase the efficiency of transportation systems by reducing traffic congestion and improving fuel efficiency. "Our StreetDrone technology uses a combination of sensors, cameras, radar, and Lidar to perceive the environment. These inputs are processed by an onboard computer, which uses advanced algorithms to make driving decisions, such as acceleration, braking, and steering," explains the Project Lead.

The project aims to push further advances in autonomous vehicle technology and enable the development of even more sophisticated and efficient transportation systems. This may involve

integrating new sensors, control systems, and AI technologies to improve vehicle safety, performance, and reliability. "I believe that the integration of virtual reality technology will continue to play an important role in the development of autonomous vehicles, allowing for more intuitive and immersive user experiences," adds Ezazul.

However, despite the potential of VR-assisted autonomous driving, there are obstacles to such a concept in Bangladesh - especially considering the absence of existing frameworks for autonomous vehicles. "In countries that allow autonomous vehicles, there are specific traffic laws and regulations to ensure the safe integration of these vehicles on public roads. For example, in the US, the National Highway Traffic Safety Administration (NHTSA) has laid out guidelines for testing and deployment of autonomous vehicles. These guidelines include requirements for vehicle performance, data recording and sharing, privacy and security, and more," states Ezazul.

He suggests that Bangladesh could

consider adopting a similar framework, focusing on safety, performance, and data sharing. "It's essential to involve stakeholders such as automotive manufacturers, technology companies, and local authorities in the process to create a comprehensive and effective regulatory environment," he adds. Nonetheless, he believes that if Bangladeshi laws were to allow autonomous vehicles, local production could be feasible, provided there is a supportive infrastructure, including skilled labour, technology partnerships, and investment in research and development.

As far as costs go, developing a VR-run autonomous vehicle can vary significantly depending on the complexity of the system, the level of autonomy, and the specific technology used. "It's difficult to provide an exact cost, but development can range from tens of thousands to millions of dollars," says Ezazul. According to him, one potential approach to implementing autonomous vehicles in Bangladesh could involve starting with smaller, more controlled applications of the technology, such as autonomous shuttles or delivery vehicles operating on predetermined routes. This would allow for testing and refinement of the technology in a more controlled environment and could help to build public trust and support for autonomous vehicle use.

Ezazul adds that the integration of autonomous vehicles could help to address several challenges facing Bangladesh, such as traffic congestion and air pollution. "By reducing the number of vehicles on the road and optimising traffic flow, autonomous vehicles could help to improve air quality and reduce travel time for commuters. Moreover, autonomous vehicles could provide transportation access to people who are unable to drive, such as the elderly and disabled, and help to promote greater social and economic inclusion," he adds.