Panorama

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Beware of nature's beauty

Appearances can be deceiving

Sunscreen 101

Pick the right one

Quishing

QR code phishing prevention

Panorama

Issue 1 - 2025

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On the cover: Ziyad and Mohammed Al Najim

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Quishing quashed

They've been around for 30 years, but it was only during the return to normality after COVID-19 lockdowns that QR codes really took off. Now they are widely used in a variety of different ways – to access menus at restaurants, download transport timetables, pay bills, find information on products, or pass through security at the airport.

However, there is a hidden dark side to QR codes, known as quishing. It's a form of phishing, or social engineering, that scammers, hackers, and criminals use to steal personal data, access bank accounts, and install malicious software on devices. They operate in different ways with QR codes that appear to be legitimate.

The simplest scam is replacement, where a legitimate QR code has a sticker with a scam code placed on top of it. Having scanned a code in a restaurant or parking garage safely once, it is believable that the QR code will still be safe to scan again.

In the vast majority of cases, the QR codes used by businesses are valid, especially those that are in businesses with high foot traffic and service staff interacting with the code, like at a restaurant. But it is worth checking that the QR code being scanned is the intended one. If the physical QR looks dog eared, is a sticker, or doesn't look original, don't trust it. If it is peeling or covers another code, don't trust it.

When scanning a QR code with the camera on a phone, the website address will display on the screen. Take a moment to check the address and make sure it corresponds to what you are expecting to see. If the address looks suspicious, is unexpected, or unfamiliar, don't click any further. Do not download any apps or other files if these were not expected when the code was scanned, as this could lead to malware on the phone.

Another method used by scammers to share malicious QR codes is through messages sent to a phone or email. They may urge the receiver to respond urgently for a package delivery or to prevent the blocking of a bank or credit account. These are methods similar to those used in other email scams.

Apply the same rules for QR codes as used for emails. Don't follow unexpected links or be fooled by messages claiming to be urgent. Check the grammar, spelling, and overall design of the site a scanned code leads to. If there are errors or unusual elements, don't click any further. If a message appears legitimate, it should be searchable on the internet for verification.

Quishing is a real threat as QR codes are used more frequently, but it is easy to avoid with a bit of caution and following simple steps to protect our personal data from scammers. ■

> **"There is a hidden dark side to QR codes, known as quishing"**



Beware of nature's beauty

In this wild world of survival of the fittest, living creatures had to evolve survival mechanisms to ensure their continued existence. Picture the chameleon changing its colors to blend into its surroundings, or a skunk spraying a foul odor to deter predators. Even us humans rely on outsmarting our competition to secure our spot at the top of the food chain. Being near the bottom of the food chain, plants may seem defenseless, but appearances can be deceiving. Hidden among the lush foliage of some plants is a dangerous component – poison.

Stationary by nature, poisonous plants have developed toxicity as a defense mechanism to protect themselves from herbivores. They look as harmless as any other plant. However, they produce substances such as alkaloids, glycosides, and resins that have effects ranging from mild irritation to death if medical treatment is delayed. Understanding these plants and how to stay safe around them is essential for anyone venturing into nature.

Exposure to the poison can be through ingestion, skin contact, or inhalation of smoke from a burnt plant. These toxins can affect different parts of the body, leading to symptoms that include skin rashes, nausea, vomiting, diarrhea, dizziness, and difficulty breathing. In rare cases, ingestion of more toxic plants can cause severe complications such as coma or organ failure.

But how poisonous are these plants? The same species of plant can have varying levels of toxicity depending on many factors, such as stage of growth, the part of the plant, growth conditions, genetic variations in subspecies, and the physiology of the human or animal exposed to them.

For example, solanine, a toxic alkaloid present in nightshade plants like potatoes and eggplants, is highly concentrated in the leaves and stems. And while the edible portions of the plant contain negligible amounts, potatoes exposed to excessive light turn green and increase solanine production. Most cooking methods have little effect on solanine levels in a potato, but peeling away the skin and any green patches is enough to make them edible.

While severe reactions to plant poisoning are rare, it's best to take precautions when interacting with vegetation. This includes knowing the plants in your home and your garden and their properties, knowing what poisonous plants are common in your area, keeping poisonous plants and seeds out of reach of children and pets, wearing gloves and protective clothing when gardening or hiking, not touching or ingesting any part of a plant you are not absolutely certain of, teaching children about the dangers of certain plants, and not relying on animals to indicate nonpoisonous plants.

When it comes to edible plants, make sure you know what it is you're eating and avoid eating parts of the plant you're not sure of. Some vegetables and legumes need to be cooked at certain temperatures before they can be safely eaten. Always store your produce properly and wash it before eating. Throw away any food that shows signs of spoilage or disease, such as a change in color, texture, odor, or taste. Keep in mind that plants safe for human consumption may be toxic to pets, and to children in higher doses.

If you're exposed to a poisonous plant and start experiencing mild symptoms, first aid at home may be enough to provide relief. For skin or eye contact, wash the affected area with running water for 20 minutes. Seek medical help if you experience more severe symptoms and take part of the plant with you to the hospital to help the medical staff identify the type of plant and the appropriate treatment.

Ziyad, Mohammed, and Naif Al Najim

Recognizing common poisonous plants

in Saudi Arabia

Oleander (Nerium oleander)

Oleander contains toxic compounds called cardioactive glycosides. All parts of this plant are toxic and a single leaf can kill a child. Ingesting the plant causes irritation of the mouth and stomach, vomiting, nausea, stomach pain, diarrhea, persistent headache, muscular weakness, breathing difficulty, abnormal heart beat, and coma.

Yellow oleander (Cascabela thevetia)

All parts of this plant are poisonous, particularly the seeds. Symptoms of poisoning include pain in the mouth or stomach, nausea, vomiting, cramping, and diarrhea. People have died from eating the kernels, only one of which can be a fatal dose. Death is caused by cardiac failure.

Castor bean (Ricinus communis)

Castor bean is an ornamental plant shrub that was named by Guinness World Records as the most dangerous common plant. The seeds (but not the oil from the seeds), and to a much lesser extent the leaves, contain ricin, a protein that is highly toxic in small quantities.

The effects of ricin commonly appear after a few hours, but may be delayed to 36 hours. Symptoms include a burning sensation in the mouth and throat, vomiting, stomach pains, prostration, convulsions, extreme thirst, bloody diarrhea, abnormally low blood pressure, circulatory collapse, and possible death if not treated. Ingesting four seeds can be lethal to adults.

Desert rose (Adenium obesum)

The desert rose sap is highly toxic, often used as arrow poison for hunting large game in Africa. Ingestion can cause both gastrointestinal and cardiac effects. The gastrointestinal effects can include nausea and vomiting, excess salivation, abdominal pain and diarrhea that may or may not contain blood. Cardiac reactions consist of irregular or erratic heart rate. Extremities may become pale and cold due to poor or irregular circulation.

Poisoning from this plant can also affect the central nervous system. These symptoms can include drowsiness, tremors or shaking of the muscles, seizures, collapse, and even coma that can lead to death.

Beating home burglaries

Home break-ins are a devastating occurrence and cause financial, logistical, and emotional havoc. Like computer hackers, burglars don't like to give up and so they become ever-more sophisticated in their efforts to access a property.

By implementing effective preventive strategies, the chances of a home becoming a target of theft can be significantly reduced. From basic, practical measures through a wide range of products up to the latest home security systems, it's possible to protect a home from intruders.

Basic security and deterrence

A report by the U.S. Federal Bureau of Investigation (FBI) in 2023 found that almost 38% of burglars gained access to homes simply by walking in. Unlocked doors, windows, or garages are common entry points for home break-ins, so don't become an easy target through complacency. Keep doors closed and locked when inside and outside the home. Ensure exterior doors automatically lock when closed. Don't hide keys around the property, because these can be found and used by burglars however safely you think you've hidden them.

Perhaps the simplest crime deterrents are security company yard signs or window stickers. These are known to discourage thieves even if there is no system inside. Such signs can often be enough to make burglars too wary to risk making a move. The company on the sign must operate in that area for this plan to be effective.

Locks

Locks and motion sensors operate as the frontline of home defense against unwanted intruders. Sensors can be attached to doors and windows to detect if they are locked or unlocked, open or closed. These sensors can be integrated with other security systems to provide real-time alerts and notifications. Some models do more than just lock doors; they can offer remote or voice control access, access logs, geofencing, and other smart features.



Depending on the age of the house, consider upgrading door and window frames and door locks. Determined burglars can go to great lengths to access homes, including picking or drilling locks, and if the doors, locks, or door jams are weak, simply kicking them open can work. Weak doors may even fail before the lock does. Consider the thickness and material of the door to ensure it is robust and in good condition.

Most modern homes have deadbolt locks integrated into their exterior access doors, but it is always worth checking what kind of locks are in place. If a deadbolt isn't part of the exterior door, have a locksmith install one. Replace short lock and deadbolt screws with longer screws that reach deep into the door frame. For sliding doors, place a pole or rod in the track that must be removed from the inside before the door can be opened. Door chains inside the door can provide some protection, but these can easily be overcome by persistent thieves.

It's best to take a multi-pronged approach to securing doors and use several methods to ensure safety: upgrade doors, use a door chain, and have a deadbolt. Choosing the right combination of safety measures will depend on house location, age of the property, other security measures being implemented, and budget.

Smart security

A smart lock offers the benefits of a conventional deadbolt without the need to carry a physical key. Many smart locks have keypads for PINs or electronic keys, where the "key" exists in an app on a smartphone and communicates with the lock wirelessly. From the app, it's possible to limit access over certain time periods, all with a few swipes on the smartphone. A growing number of smart locks also have built-in fingerprint scanners, allowing anyone approved to unlock the door with the tap of a finger.

If going totally keyless is uncomfortable, retrofit smart locks only replace part of the lock system, so a physical key can still be used together with an app to lock and unlock the door.

Many home security systems now double as smart home hubs, allowing automated control of connected locks, lights, thermostats, and more from a single app on a smartphone. This adds to security measures by making it possible, for example, to switch on lights remotely to make it appear like someone is home when they are not.

Security cameras

Cameras mounted externally and internally can act as a visual deterrent to burglars – even if they are not actually connected. There are less expensive options for self-installation to more expensive options such as employing a security company to install a security package paid for monthly. An advantage of hiring a security company can include 24/7 monitoring, emergency response alerts to local authorities, and cloud storage backup of all footage.

Outside approaches

Remember to include garages, sheds, and other outbuildings in the home security plan. Often, these areas are overlooked or forgotten but can be a burglar's point of access to a property – especially if tools such as hammers or bolt cutters are stored inside, which can then be used during the break-in. Place locks on all storage areas and keep keys inside the home, not near the structure.

Other factors to keep in mind

While all home security systems guard against burglary, consider whether additional forms of protection are wanted or needed. Security systems can incorporate sensors that sound the alarm for fires, high levels of carbon monoxide, water leaks or flooding, and extreme temperatures. Some systems offer wearable panic pendants that can activate in the event of personal injury or fall, summoning help.

Vacation

Don't just rely on cameras and locks. While away from home consider having a trusted person check on the house at different times of the day, and give them a key or the passcode for the locks. Ask them to water plants, care for pets, check that there isn't a water leak or other home problem, and switch on random lights or the TV. Burglars prefer homeowners who keep a consistent routine, and will take advantage if the home is empty for long periods of time. Let a trusted neighbor know about vacation plans, so they can keep an eye on the house, too.

Invest in light timers that switch lights or plug outlets on and off around the house at different times so it appears as if someone is home. Try to avoid activating the same switch at the same time. Making the schedule more random will make anyone watching the house have more difficulty guessing if this is a "staged" effect.

A home is built to protect its residents; by taking simple, protective steps, burglars can be kept at bay and out of your house. ■

Sunscreen 101: how to pick the right one

Choosing the right sunscreen can feel overwhelming, especially with so many options claiming to be the best. But skin protection doesn't have to be complicated. Here's how to find the perfect sunscreen for you – and how to use it effectively.

Mineral vs. chemical sunscreen

There are two main types of sunscreen: mineral (or physical) and chemical. Each works differently and the best choice depends on your skin type and personal preference.

Mineral sunscreens sit on top of the skin and create a barrier that reflects ultraviolet (UV) rays. They typically contain zinc oxide or titanium dioxide and start working immediately. These sunscreens last longer than chemical sunscreens and are great for sensitive skin since they're less likely to cause irritation or a reaction. However, they are heavier than chemical sunscreens and can leave a white cast that may make some people reluctant to use them.

Chemical sunscreens, on the other hand, absorb into the skin and convert UV radiation into heat, which is then released. They tend to be lighter in texture and easier to rub in, making them a popular choice for daily wear. But they can sometimes cause irritation, especially for people with rosacea, eczema, or acne-prone skin, and can cause a burning sensation if they come in contact with the eyes. They also need to be applied 30 minutes before sun exposure to be completely absorbed. Some common active ingredients include avobenzone, octinoxate, and oxybenzone.

"Both mineral and chemical sunscreens are advantageous in their own ways, but in the end, the best sunscreen for you is the sunscreen that you are willing to use," says Dr. Taylor Bullock, a Cleveland Clinic dermatology resident.

UVA and UVB

There are two types of UV rays that can damage the skin – UVA and UVB. UVA rays make up most of the radiation that reaches the skin and cause premature aging, hyperpigmentation, and some types of skin cancer, while UVB rays are responsible for sunburns, DNA damage, and most types of skin cancer.

SPF stands for sun protection factor, and it is a measure of the fraction of UVB rays that are not blocked by the sunscreen. If applied correctly, an SPF 30 sunscreen will block all but one out of 30 UVB rays, or about 97%. SPF 50 blocks 98%. Importantly, this is not a measure of how long they are effective. An SPF 30 sunscreen does not mean the skin is protected for 30 minutes or 30 hours or 30 times longer than without sunscreen.

"30 [SPF] or higher is good for everybody," says Dr. Mona Gohara, an associate clinical professor of dermatology at Yale, "but the number becomes irrelevant if you aren't applying enough in the first place," she adds. Applying enough and reapplying regularly matters more than the number. Light skinned users should use a higher SPF and apply more frequently than darker skinned users, because of the amount of light absorbed and reflected by the skin.

While SPF measures protection against UVB rays, it doesn't account for UVA rays. This is where the Protection Grade of UVA (PA) system comes in. The PA system measures how well a sunscreen protects against UVA rays using a plus sign scale, with more plus signs indicating higher protection. The ratings range from PA+ (meaning some UVA protection) to PA++++ (very high UVA protection).

For daily wear, PA+++ (high UVA protection) is generally enough, but for spending a lot of time outdoors PA++++ provides the best defense against long-term sun damage.

Not all sunscreens protect against both UVA and UVB rays. That's why using a "broad spectrum" sunscreen is important, as it will shield your skin from both types of harmful radiation.

Some sunscreens aren't labeled as broad spectrum but display both the SPF and PA rating, which indicates protection against both types of radiation. All mineral sunscreens provide broad-spectrum protection, even if they aren't labeled as such.

Other terms you should know

If a sunscreen is labeled "water resistant," it will stay effective for a certain amount of time while swimming or sweating – usually 40 or 80 minutes. But no sunscreen is truly waterproof, so reapplication every two hours or after swimming or heavy sweating is still essential. Also reapply after towel drying.

You may have seen sunscreen labeled "reef safe" or "reef friendly." These are sunscreens that have been formulated without ingredients like oxybenzone and octinoxate – ingredients that are found in 65% of chemical sunscreens. These have been linked to coral bleaching and marine pollution, and some places like Hawaii and Palau have banned them to protect marine life. However, since "reef safe" isn't a regulated term, if you are planning to swim in open water, look for mineral sunscreens with non-nano zinc oxide or titanium dioxide, which are considered less harmful to marine ecosystems.

It's also a good idea to avoid spray and aerosol sunscreens, which are more likely to contain nanoparticles that are harmful to both health and the environment. When these sunscreens are applied, a significant amount of the product is lost to the wind, meaning less coverage for the skin and more pollution to the environment. The inconsistent coverage makes it easy to miss spots and get sunburned. Additionally, many people don't apply enough or don't rub it in properly, reducing its effectiveness. There's also the issue of inhalation, which poses potential health risks. Creams, gels, and roll-on formulas are a more reliable, safe, and eco-friendly choice.

Skin types

For oily skin, choose a sunscreen that is lightweight and non-greasy. Gel-based or mattifying formulas work well because they absorb quickly without leaving a shiny residue. Many sunscreens are designed to be oil-free, making them a great option for people who struggle with excess shine.



"For those with acne-prone skin, the wrong sunscreen can lead to breakouts"



For dry skin, a sunscreen that doubles as a moisturizer can help keep your skin hydrated while protecting it from UV damage. Look for products with added ingredients like hyaluronic acid, glycerin, or ceramides, which help lock in moisture. Cream-based sunscreens are usually better than gels or sprays since they provide extra nourishment.

If you have sensitive skin, mineral sunscreens are often the best choice since they're less likely to cause irritation. It's also best to avoid sunscreens with added fragrance, alcohol, or preservatives that could trigger a reaction.

For those with acne-prone skin, the wrong sunscreen can lead to breakouts, so it's important to find a product labeled "non-comedogenic," meaning it won't clog pores. Lightweight fluid or gel sunscreens tend to be better than thick creams, which may feel too heavy. Some sunscreens even contain acne-fighting ingredients like niacinamide to help ease inflammation while providing sun protection.

Babies under six months old shouldn't wear sunscreen at all – keep them in the shade and use protective clothing instead. For older babies and children, mineral, fragrance-free sunscreens designed for children are often the best choice as they're less likely to cause irritation.

Bottom line, the best sunscreen is the one you'll actually wear. Find one that suits your skin, apply it generously, and make it part of your daily routine. Your skin will thank you. ■

How to apply sunscreen



Use about a tablespoon amount for your face and 30 to 60 ml (1 to 2 ounces) for your body.



Don't miss often overlooked areas such as the ears, around the eyes, hairline, back of the neck, tops of feet, and backs of knees.



Reapply every two hours, or immediately after swimming, sweating, and towel drying.



Don't skip the sunscreen just because it's cloudy – up to 80% of UV rays can penetrate through clouds.



"An SPF 30 sunscreen does not mean the skin is protected for 30 minutes or 30 hours or 30 times longer than without sunscreen"

Fighting the fluff: pet hair problems

Having a dog or cat is fun, but it's not such fun for the washing machine, faced with removing the furry mess. "Pet hair is definitely a challenge to remove from most fabrics," says Randy Radtke, a spokesperson for Alliance Laundry Systems. "Once water is added to the equation, it becomes that much more difficult."

To protect your fabrics, washing machine, and plumbing from clumps of wet pet hair there are a few things that can be done. The best way is to reduce the amount of pet hair on bedding or clothes before they head to the washing machine.

Start by brushing the pet every day to keep loose hair to a minimum. This is especially important for pets that shed. Use a lint roller or tape to remove pet hair from clothing before putting it in the machine. Double-coated dog breeds like German shepherds, huskies, and golden retrievers, and long-haired cats like Persians, pose a greater risk to washing machines since their fur is thick and long.

Human beds

Pet hair will collect wherever the pet sleeps. If that's on your bed, put on a rubber glove, dampen it with water, and run the glove over the sheets or blankets. The hair will cling to the glove, clump up, and be easier to gather and discard before heading to the wash.

Toss bedding into the dryer before washing it. Use a 10-minute "air fluff" no-heat cycle to help loosen the pet hair. Be sure to clean the lint trap before and after this process, and clean the dryer duct annually or more often if the dryer is being less efficient. When the air fluff cycle is finished, give the bedding a good shake to remove any remaining pet hair. Do this outside to avoid filling the wash room with floating pet hair. Now it's ready for the washing machine.

In the wash, use a fabric softener to help loosen pet hair and an extra rinse cycle to help wash the hair away. After the wash cycle, run a self-clean cycle or empty wash cycle to help clean pipes and drains. Wipe down the machine's drum, door, and gasket with a damp cloth to remove residual pet hair and reduce the chances it will transfer to the next load.

Pet beds

Before washing a pet bed, the American Cleaning Institute recommends using a vacuum or lint brush to gather as much pet hair as possible. Pay special attention to corners and around buttons or tufting. If possible, remove the bed cover and treat it as a separate item. Use the same tips for washing human bed sheets and blankets as for washing pet beds: damp glove to gather hair, extra rinse cycles, and air fluff.

Check the label for washing instructions before loading it into the washing machine. Beds that are too large for the washing machine can either be professionally cleaned or hand-washed in the bathtub. Wash in hot water to kill any insects and eggs that might be hiding in the bedding.

If the pet bed fits in the dryer, follow the manufacturer's directions for heat level. Clean the lint trap before drying, halfway through the drying cycle, and at the end of the cycle. Wipe the washer and dryer with a damp paper towel or cloth to remove any pet hair after use. If the pet bed is too big for the dryer, place the bed in a well-ventilated area to help prevent mold and mildew growth.

Getting pet hair out of fabrics can be tricky, but it's not impossible. It also ensures that the washing machine, plumbing, and bedding have long, useful lives of service. ■

"Double-coated dog breeds like German shepherds, huskies, and golden retrievers, and long-haired cats like Persians, pose a greater risk to washing machines"



Dishing up clean: the low down on dishwashers

Dishwashers make it easy to get sparkling, sanitized, and clean plates, glasses, and silverware. They use hotter water than is possible for hand washing dishes, use steam for sanitization, and allow more members of the family to handle a simple chore with less waste. But correct loading and unloading is necessary to ensure a sparkling shine every time. Each dishwasher is slightly different, so reading the manufacturer's recommendations for loading is always a good idea, but some tips are universal.

Place cups, glasses, and small bowls in the upper rack, upside-down, so the spray arm can wash into the container. This is also where dishwasher-safe plastics should be placed to avoid the heating element that is usually located at the bottom of the washer. The lower rack is for plates, serving bowls, and other large items. Keep metal bowls and pots away from plates and dishes that could be broken if the pot shifts during the wash cycle.

All items should be placed at an angle so the water and detergent can reach each area and then easily flow out and away. Each item should have some room to move and space between it and the next item. This allows the water and detergent to reach everywhere.

For cutlery, place forks and spoons handle-side down in the cutlery basket, but place knives point down to avoid grabbing the blade during unloading. Mix spoons, forks, and knives together to prevent them from nesting or sticking together. Each utensil should have some room to move around in the basket. Larger utensils such as ladles and tongs can be placed flat in the upper rack.

Make sure the spray arm can move freely when the racks are in place. If large cutting boards or dishes block it, move them to the outside of the rack, or run them separately in a second wash when they can be laid down. Spin the arm to test it before running the load.

Scrape off large food chunks such as excess sauce, bones, and shells. These can clog the dishwasher's filter and reduce the performance. Pre-rinsing is not recommended as the detergent needs something to work on, so the dishes need to be dirty for the detergent to work effectively. Modern dishwashers have sensors to test how dirty the dishes are when it starts and can adjust as needed. Pre-rinsing can actually make the wash less effective.

Place the dishwashing detergent in the container on the door, and close the flap. Don't place large items near the detergent container, as this can block the detergent from being released. Dishwashers automatically release the detergent at the correct point in the wash cycle. Avoid the trend to put a detergent tab in the bottom of the washer or in the silverware basket. Placing it there results in the detergent being washed away with the initial rinse cycle, leaving the dishes to be cleaned with water only.

After the wash is complete, slightly opening the dishwasher door will allow steam and heat to dissipate making it easier to quickly unload. Leaving the door slightly open also reduces mold and mildew growth that can begin around the seal. When unloading, empty the bottom rack first. Water that may have collected on the surfaces of mugs or glasses in the top rack will spill when the rack is moved, splashing items in the bottom rack if they are still there.

Following these simple steps ensures that the dishwasher is correctly loaded and run, and sparkling dishes will result every time. ■



Stars of safety



Captain George William Manby

In 1807, Manby invented a special mortar gun that fired a line of rope from the shore to a sinking ship, allowing those on board to escape to safety. It's estimated that more than 1,000 people were rescued using this system. In 1813, his "Extincteur" became the first portable, pressurized fire extinguisher, and modern fire extinguishers are still based on this original design.



Martha Jane Coston

In 1859, Coston was granted a patent for a pyrotechnic night signal and code system, based on flares in three different colors. Many navies used these to communicate between ships, as well as from ship to shore. The U.S. Life-Saving Service, which later became the U.S. Coast Guard, used these flares to warn of danger and summon rescuers to wrecks. Coston's invention is credited with saving thousands of lives, and is one of the reasons flares are still used in emergency rescues operations today.

Tech for today



Ride smart

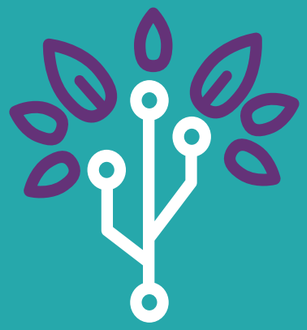
In an era where everything seems to be getting a "smart" upgrade, some innovations stand out for their real-world benefits. Smart helmets for motorcyclists and micromobility users go beyond convenience, integrating cutting-edge safety features that make a real difference. Equipped with fall detection sensors, these helmets can automatically send alerts to emergency contacts in the event of an accident, ensuring help arrives even if the rider is unable to call for it. Built-in LED lights improve the rider's visibility at night and in low visibility conditions, while blind-spot cameras provide a real-time view of surrounding traffic. Noise-canceling technology helps protect the user's hearing by filtering out excessive environmental noise while allowing essential sounds, like sirens or car horns, to remain audible.

Beyond safety, smart helmets offer other advanced features, such as integrated Bluetooth, navigation prompts, and heads-up displays, allowing riders to access essential information without taking their eyes off the road.

Bridging the gap

Advancements in bioelectronics are unlocking new ways to communicate with the natural world, and researchers at Nanyang Technological University (NTU) Singapore have developed a device that allows real-time interaction with plants. This tiny, flexible electrode attaches to a plant's surface, detecting its electrical signals and transmitting commands. In one experiment, researchers successfully made a Venus flytrap close its leaves on demand.

The potential applications of this technology are vast. Farmers can use it to monitor plant health, detecting stress or disease before symptoms appear. This could improve crop yield and reduce food insecurity around the world. While plant communication has long been a concept of science fiction, NTU's device brings it closer to reality.



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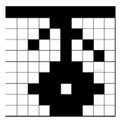

هل تريد أن تظهر في مجلة بانوراما؟

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