GLIMPSES OF THE FUTURE

A monthly digest of technologies, developments and trends that will shape our lives.

Stage-Struck Robots Strut Their Stuff

A team of South Korean scientists is to produce dramas with robots playing the main characters, and some of the scenes will feature androids performing without any human actors.

The team, led by Lee Ho-gil at the state-run Korea Institute of Industrial Technology, said recently that its EveR-3 female android will take a leading role in multiple shows throughout this year.

EveR-3 is an android that is 157 centimetres tall and weighs 50 kilograms. With beautiful style and lifelike skin, she has an ability to communicate in two languages with her lips synchronized to the words.

Hitchhiker's 'Babel Fish' Coming To Phones Near You

Google is developing software for its first mobile phone that is capable of translating foreign languages almost instantly — like the Babel Fish in The Hitchhiker's Guide to the Galaxy.

By building on existing technologies in voice recognition and automatic translation, Google hopes to have a basic system ready within a couple of years. If it works, it could eventually transform communication among speakers of the world's 6,000-plus languages. (So why are you still insisting that young Jimmy learns Mandarin?)

Dog-e-Minder Records Fat Dogs' Habits

A new device called the Dog-e-Minder should help you work out why your dog is overweight. It attaches to your pet's collar and shows the last time your dog was fed, walked or had its medication. When idle, the Dog-e-Minder works as a backlit identification tag.

Florida-based Dog-e-Minder LLC says the product is great to use as a training aide or as a reminder for busy pet-owners, multi-pet homes and pet-sitters/walkers.

New Gene Test Spots Cancer Recurrence Early

A personalised blood test that can identify tumour DNA has been developed at the Johns Hopkins Kimmel Cancer Center in Baltimore, Maryland, USA. It could be the first step towards a long-promised revolution in the way cancer is treated.

In the short term, the test could be used to spot cancer recurrence before tumour growth shows up on scans, meaning that treatment could be started earlier.

The test detects genetic rearrangements that distinguish cancer cells from normal cells. Eventually it might also pave the way for more personalised cancer treatments tailored to the genetic signature of individuals' tumours.

Chinese Mothers Volunteer To Search For Internet Pornography

China has unveiled its new secret weapon in the country's all-out war against Internet pornography - mothers.

The Chinese government has recruited 60 volunteer mothers to form a 'Mom jury' tasked with surfing the Web to find porn sites that are deemed indecent for young Internet users.

Their task will be to ferret out the sites that are potentially offensive and accessible for children - and alert government watchdog agencies to take further action. A pool of 200 more volunteer mothers is said to be waiting in the wings to join the indecency hunt.

The move is part of the Chinese government's campaign to 'purify the social environment,' which has led to the shut down and blocking of 15,000 Web sites, the country's official state news agency, Xinhua, reports.

Mums, presumably, are immune.

Spray-On Liquid Glass Is Hailed As Revolution That Will 'Change Everything'

A new spray-on liquid glass is transparent, non-toxic, and can protect virtually any surface against almost any damage from hazards such as water, UV radiation, dirt, heat, and bacterial infections**.**

Developed in Turkey under a German patent the coating is also flexible and breathable which, it is claimed, makes it suitable for use on an enormous array of products.

Food processing companies in Germany have already carried out trials of the spray, and found sterile surfaces that usually needed to be cleaned with strong bleach to keep them sterile needed only a hot water rinse if they were coated with liquid glass.

A year-long trial of the spray in a Lancashire hospital also produced 'very promising' results for a range of applications including coatings for equipment, medical implants, catheters, sutures and bandages.

SmartGun Uses Wristwatch For Authentication

The new Armatix SmartGun concept keeps a law-enforcement officer's gun safe by disabling the pistol unless it's in the hands of someone wearing a custom wristwatch that sends a signal to arm the gun.

To ensure criminals can't just steal the watch along with the gun the user must first have their fingerprints verified. The fingerprint is read by a sensor on the watch, which compares it against an internal database of stored prints. Once the print

Home Sperm Count System Removes Male Embarrassment

Researchers at the University of Twente in Holland have developed an electronic chip that takes all the embarrassment and inconvenience out of getting a sperm count.

The chip-based test kit takes the semen and passes a current through it as it moves through a microchannel, measuring the impedance of the fluid as it moves through. Different cells in the sample produce different impedance spikes, and when the sample is 'doped' with a known quantity of latex beads, it becomes possible to determine what ratio of sperm cells there are to the beads.

The results are said to be very close to what you get from a manual sperm count in a clinic - an average of 97% accuracy in initial testing - meaning that reliable home fertility testing kits for men are now just around the corner.

Home Tests Kits For Cancers And Other Diseases

A tiny sensor being developed at the University of Missouri in the USA could bring the benefits of home testing to the diagnosis a variety of diseases, including breast and prostate cancers.

The sensor, known as an acoustic resonant sensor, is smaller than a human hair and could one day be used in home testing kits for the easy, rapid and accurate diagnosis of a range of diseases.

The real-time, special acoustic resonant sensor being developed at the university uses micro/nanoelectromechanical systems (M/NEMS) to directly detect diseases in body fluids. Since the M/NEMS are tiny devices smaller than the diameter of a human hair and the sensor doesn't require bulky data reading or analysing equipment they can be integrated with equally small circuits, creating the potential for small stand-alone disease-screening systems.

is verified the watch is then activated for a definable period of time – a police officer's work shift for example – or until manually deactivated.

The Sweet Promise Of Compostable Plastics Made From Sugars

Plastic disposal and recycling is a problem for every society so the announcement of a new sugar-based polymer that is biodegradable and compostible is very welcome. The first application for the new plastic will be in food packaging.

Under development at Imperial College London, the new polymer can be made from cheap materials or waste products which makes it economically sustainable compared to petrochemical-based plastics.

The team says the polymer may also have applications in specialized medical applications such as tissue regeneration, stitches and drug delivery as the polymer has been shown to be non-toxic to cells and decomposes in the body creating harmless by-products.

New GM Tomatoes Stay Fresh For 45 Days

Indian scientists have genetically engineered tomatoes to help them stay fresh for a month longer than they normally would.

The new GM tomatoes are claimed to retain their texture and firmness for up to 45 days, compared to conventional tomatoes that start shrinking after 15 days.

The tomato development was carried out at the National Institute of Plant Genome Research (NIPGR) in Delhi where plant geneticists identified and suppressed two enzymes in the tomato genome that promote ripening.

Robots Begin To Socialise

A pan-European team of robotics researchers begins a project this year that could see humanoid robots interact with groups of people in a realistic, anthropomorphic way for the first time.

If successful, the project will give future humanoid bots something that existing robots don't possess - the simple social skills necessary to deal with small groups of people, including the basic intelligence to pick out a group of humans and determine which ones want to interact with it. It could also endow robots with the ability to infer meaning from incoming sense data, which would be a rudimentary step towards truly anthropomorphic robot intelligence.

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