



CSIRAC (1939)

CSIRAC (Council for Scientific and Industrial Research Automatic Computer), originally known as CSIR Mk I, was Australia's first digital computer, and the fifth stored program computer in the world and presently the oldest intact (albeit inoperable) digital computer in the world. The CSIRAC was constructed by a team led by Trevor Pearcey and Maston Beard, working in large part independently of similar efforts across Europe and the United States, and ran its first test program some time in November 1949. The machine was fairly representative of first-generation valve-driven computer designs. It used acoustic delay lines as its primary store.



startech@thedailystar.net

TECHVIEWS

Tools of advanced warfare Where is the limit?

BEFORE writing this article, I was having second thoughts as to how relevant this topic would be in the context of Bangladesh. But I was soon brought out of my dilemma by the fact that relevance has nothing to do with people's interest in a certain subject. So here goes this week's Lead News on the Star Tech page, on some of the recent advances of warfare tools the world has seen.

Imagine a scenario where, half a mile outside the enemy-held airport that is on the night's objective, 100 U.S. Special Forces operatives stow their

The relative positions of his squad members are also displayed, as are surrounding buildings and suspected positions of enemy soldiers, updated in near real time via radio.

As each soldier and his squad members come within a few hundred meters of the airport buildings, they fan out. The soldiers approach the immediate objective: a structure believed to be, based on the latest intelligence data, the enemy's sleeping quarters. One soldier takes up a position just outside the main door and swings his rifle into the doorway, sur-

adapted the room-size behemoths for ballistics predictions and code breaking. Throughout the Cold War, the U.S. and its allies poured money into IT to improve their weapons. By the time the Berlin Wall came down, radars and other sensors were using computer power to process more target information; missiles relied on embedded processors for guidance and control; and complex algorithms provided fire solutions that let tanks shoot on the move. In fact, computer-controlled avionics (aeronautical electronics) are the only reason the ungainly F-117

in the few seconds it took the missiles to reach their targets.

War vehicles have also recently seen a lot of change, with emphasis on aerodynamics, durability, strength and adaptability. However, interestingly enough, cost has always remained a lower priority with exorbitant price tags to these mighty machines.

One of the latest additions to the armoured vehicle fleet of the British Army will be a category of vehicle called the tactical support vehicle (TSV). In October 2008, 400 TSVs were ordered as part of the \$700m protected patrol vehicles package. The new TSVs will be used to accompany patrols, and also to transport supplies such as ammunition and water.

The three types of vehicle include the Wolfhound - a heavy armoured support vehicle to support and supply the new Mastiff with heavy mine protection (force protection), the Husky - a medium armoured truck to carry out support in less threatened areas and the Coyote - a light armoured support vehicle to support the new Jackal 2.

The Wolfhound TSV (heavy) and the Coyote TSV (light) will be produced as one variant, which is a utility flatbed vehicle that will be used to transport combat supplies. The Husky TSV (medium) will be produced as three vari-



parachutes, regroup into squads, and prepare their attack. In the past, these soldiers wouldn't have known where the enemy was or whether they were walking into an ambush - until the shooting started. They would have relied on printed maps with information that was likely to be several hours old when they boarded their C-130 for transport to the objective.

But this unit has advanced technology that gives it a decisive edge. Each soldier is equipped with a helmet-



mounted GPS navigation receiver, a small wireless intrasquad voice and data comms system, and a wearable computer linked to an intrasquad LAN. From a flip-down display on his helmet, each soldier can scan the darkness with thermal and night-vision sensors mounted on his M-4 rifle. Each soldier navigates his computer through a track pad mounted beneath his uniform on top of his chest. For navigation and situational awareness, a soldier calls up his position on a map that automatically scrolls as he moves in any direction.

veying the scene via a camera mounted on his M-4 rifle, avoiding exposure to hostile fire.

Although this scenario may sound improbable, all this technology exists, with much of it deployed in parts by the US Defence. The development of smaller, faster, and cheaper computers, interface improvements, networks, database access, and improved software algorithms has put computing power in the hands of U.S. infantrymen and women.

Computers arrived just in time for World War II, and the military quickly

stealth fighter can fly.

By the time the Gulf War erupted in 1991, U.S. aircraft, ships, and tanks bristled with technology that boosted the performance of their sensors, communications, fire-control systems, and munitions. Greater processing power let weapons systems fuse their own sensor data with off-board intelligence feeds for greater situational awareness. As a result, U.S. forces could engage more distant targets and detect and defeat guided missiles with jammers that cycled through thousands of jamming tech-

ants; utility vehicle, ambulance with enhanced protection and command post vehicle.

The Jackal 2 has been designed to a high specification to protect personnel against roadside explosions and mine attack. The vehicle also has a special air-bag suspension system that allows rapid movement of the vehicle across varying terrain.

The vehicle is expected to be used for reconnaissance, rapid assault, fire support and convoy protection. The vehicle will have a range of 800km and will include a 7.62mm general-purpose machine gun (GPMG) and either a .50-calibre heavy machine gun (HMG) or grenade machine gun (GMG) as the main weapon system. The gun ring weapon in this machine has a 360° sweep of fire, much higher coverage than its predecessors.

Although, the key objective of most modern war machines is to minimize the number of personnel casualties by machines doing most of the work, it also means higher precision and hence higher number of people getting killed from the 'enemy side'. With growing concerns and calls for 'world peace' by global leaders, spending on warfare, ironically enough, seems to be on the rise and shows no sign of decline!

Sources: pcmag.com, army-technology.com

Compiled by Mahdin Mahboob

TECHNEWS

Michael Jackson death a landmark event for Web

AFP, Washington

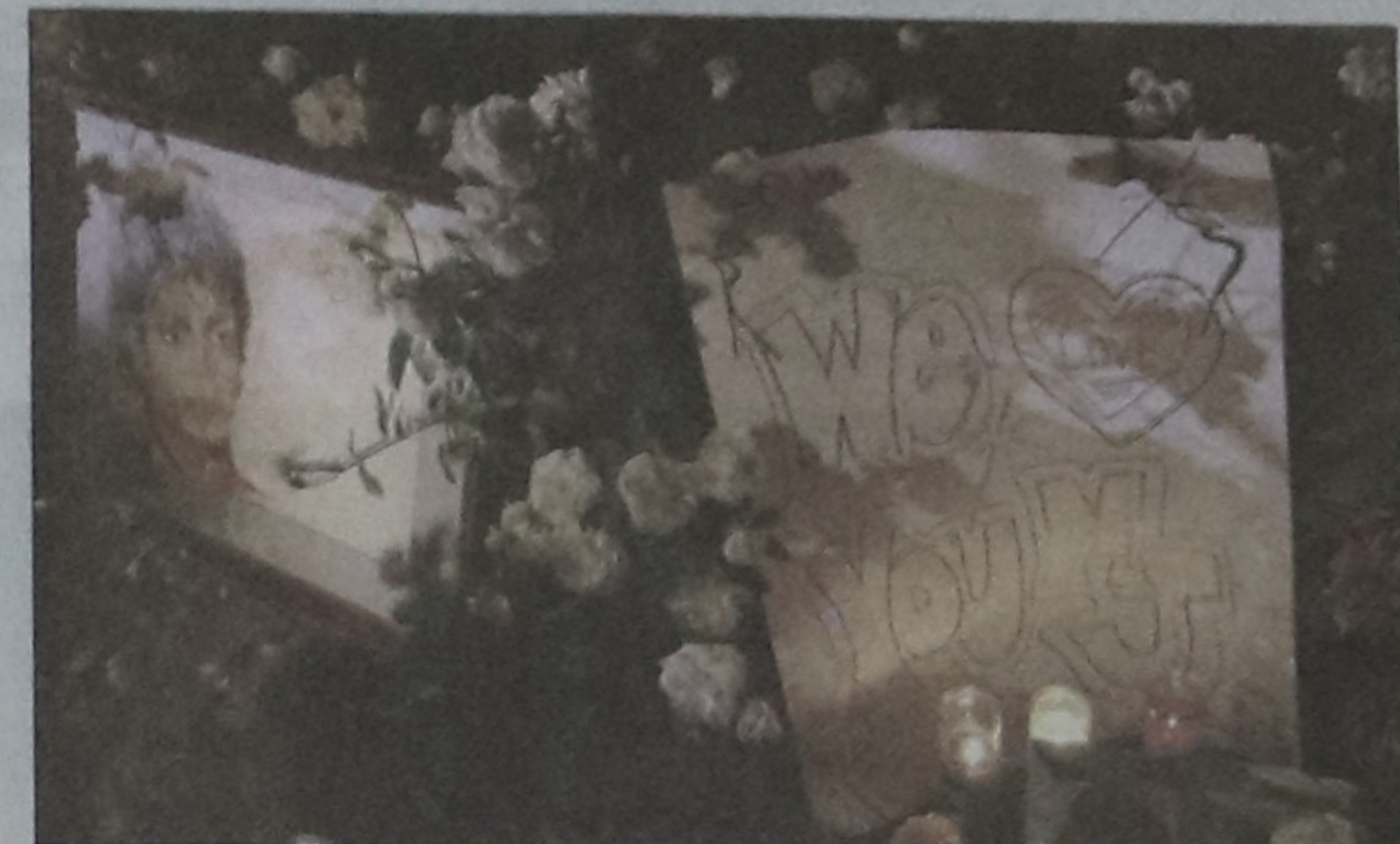
POP star Michael Jackson's death is being seen as a watershed event for the Internet with a website, TMZ.com, scooping "old media" and millions around the world finding out about it online.

TMZ, a joint venture of Time Warner's Web portal AOL and Telepictures Productions, left more established media outlets in its dust, publishing the first reports on both Jackson's hospitalization and on his death.

The "We're sorry" page tells users their query "looks similar to automated requests from a computer virus or spyware application" and forces them to type in a series of squiggly characters before it will process their request.

TMZ co-owner AOL, which encountered problems with its instant messaging service, also said Jackson's death was a "seminal moment in Internet history."

"We've never seen anything like it in terms of scope or depth," AOL said.



News of the sudden demise of the "King of Pop" rocketed around the Web at cyberspeed based solely on the TMZ reports, spread by posts on micro-blogging service Twitter, Facebook status updates, instant messages and emails.

"Increasingly, people are turning to Twitter and social media, Facebook in a big way, to just talk and share ideas and feel that they're connected to other people in moments of joy and crisis," said Sree Sreenivasan, dean of student affairs and new media professor at Columbia Graduate School of Journalism.

Other media outlets eventually confirmed the TMZ reports and Web surfers around the globe turned to their favorite websites for news or to YouTube to watch Michael Jackson videos or post their own tributes.

"Michael Jackson's death was clearly a seminal event," Yahoo! said.

Yahoo! News "set an all-time record in unique visitors with 16.4 million people, surpassing our previous record of 15.1 million visitors on election day," it said.

The heavy traffic reportedly strained the servers of a number of websites, including those of Twitter, but respected technology blogger Om Malik said reports of an Internet meltdown were overblown. "Only a handful of sites went on the blink," he wrote in a post on his blog GigaOm.

A deluge of search queries for Michael Jackson led Google News, the news aggregator of the Internet giant, to initially believe it was under attack.

"The spike in searches related to Michael Jackson was so big that Google News initially mistook it for an automated attack," Google said Friday.

"As a result, for about 25 minutes yesterday, when some people searched Google News they saw a 'We're sorry' page before finding the articles they were looking for," it said.

"Historically, celebrity news prompts a worldwide outpouring with several key consumer behaviors - searching, sharing and reacting to the news followed by online tributes has become the modern way to mourn," it said.

"Princess Diana was the first notable Internet example. Michael Jackson and Farrah Fawcett (the Charlie's Angels star who also died on Thursday) are the latest."

Twitter co-founder Biz Stone posted a message on his Twitter feed late on Thursday after getting off a plane: "Stepped off a 10hr flight to discover Twitter is essentially a wake for recently departed Michael Jackson."

The Nielsen Co. said Friday that 16 percent of Twitter messages over the past 24 hours referenced Jackson. Less than two percent of "tweets" mentioned Fawcett and the Iranian election, which had held the top spot for two weeks.

TMZ, whose most notable previous scoops included Mel Gibson's 2006 arrest for drunk driving and the breakup of Britney Spears' marriage, kicked off its coverage with a brief report Thursday afternoon.

"We've just learned Michael Jackson was taken by ambulance to a hospital in Los Angeles... and we're told it was cardiac arrest and that paramedics administered CPR in the ambulance... and it's looking bad," it said.

It followed up shortly afterwards with: "We've just learned Michael Jackson has died. He was 50."

It wasn't until nearly an hour later that an established media outlet, The Los Angeles Times, weighed in with its own confirmation of Jackson's death.

"We were getting calls from everyone under the sun, established news operations, asking, 'Are you sure?'" TMZ managing editor Harvey Levin told the Los Angeles Times.

"That's such an odd question. We would not have published it if it were not true," he said.

TECHNEWS

AgreeYa Solutions in Bangladesh

STAR TECH REPORT

AGREEYA Solutions (AgreeYA), a U.S.-based global provider of business and technology services and solutions, has formally announced its acquisition of Bangladesh operations of Solitus Infotech, a global provider of IT solutions and services.

"AgreeYA will be the first CMMI Level 5 Company to operate in Bangladesh with the opening of their 4th global delivery centre in Dhaka," said Co-Founder & Managing Partner of AgreeYA Solutions Ajay Kaul at a recent press conference at the Jatiya Press Club.

"AgreeYA Solutions, headquartered in California, has been providing high quality solutions and services to customers such as

Acer, Alcoa, Allergan, Daimler Chrysler, Deloitte, Fujitsu, GAP HP, Kaiser Permanente, Lucent, Mitsubishi, Nissan, State of California, North Carolina and Washington, and Verizon, and now on it will expand its network in Bangladesh," he said.

In his speech he also said his company would employ 500 ICT professionals in Bangladesh over the next three years.

AgreeYA has defined a multi-prolonged market strategy for AgreeYA Bangladesh in terms of offering consulting, technology, and outsourcing, Ajay Kaul added.

Among others Amitabh Noor, business development manager and S. M. Zakir Hossain, business manager of Solitus Infotech Bangladesh Ltd were also present at the occasion.

TECHNEWS

Warning over Michael Jackson email virus

AFP, Singapore

COMPUTER security firm Sophos issued a warning about an Internet virus transmitted from a mass email claiming to contain secret songs and photos of Michael Jackson.

The email comes with the subject "Remembering Michael Jackson" and is sent from "sarah@michaeljackson.com", Sophos said in a statement sent by its Asia office in Singapore.

It tells recipients that an attached file titled "Michael songs and pictures.zip" contains secret songs and photos of the pop music icon, who died of a heart attack in the United States on June 25.

Sophos warned computer users not to open

the attachment.

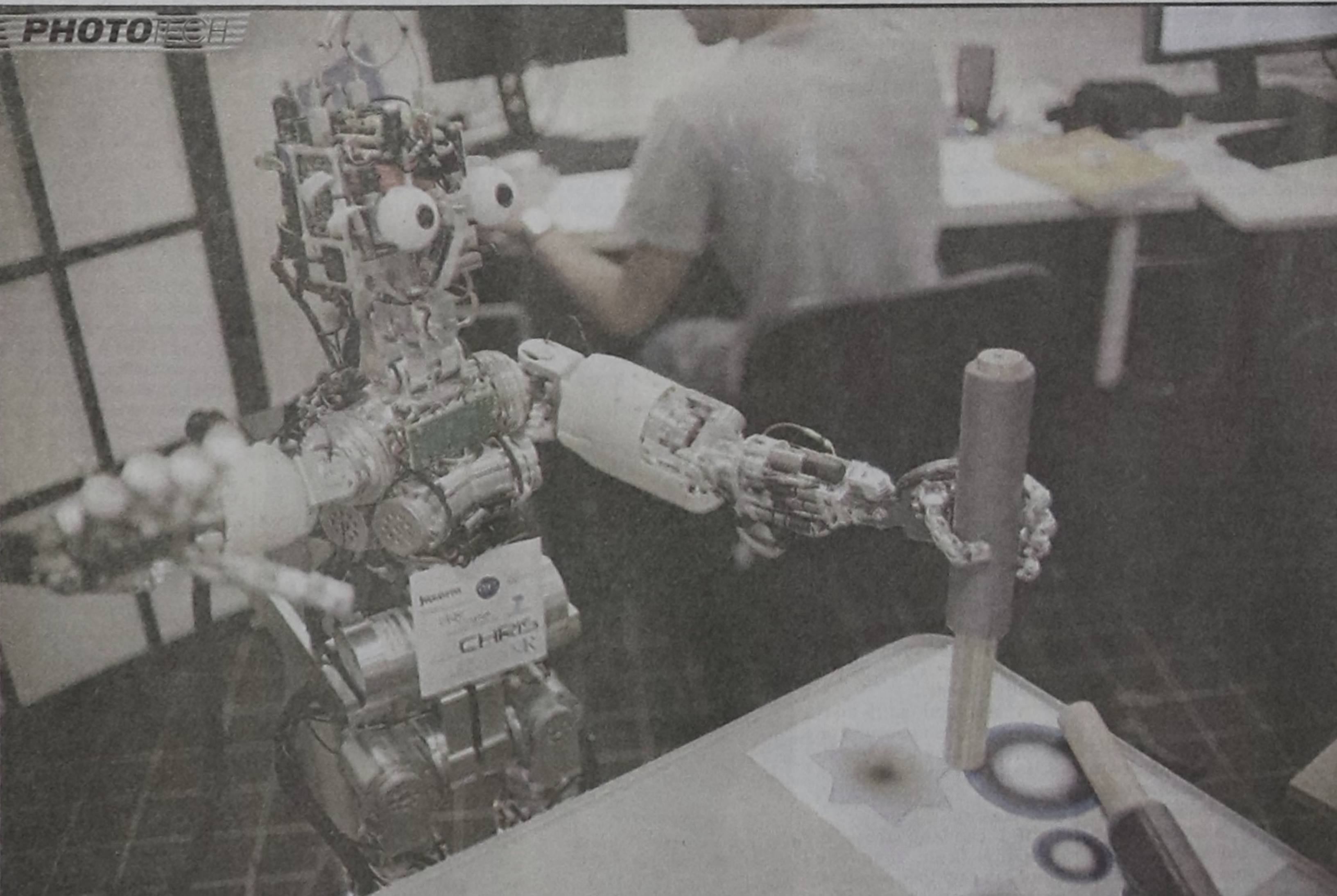
"By opening the attachment, computer users are exposed to infection. Once infected, a computer will begin automatically spreading the worm onto other Internet users," Sophos said.

"Besides spreading via email, Sophos experts note that the malware is also capable of spreading as an Autorun component on USB memory sticks."

Graham Cluley, a senior technology consultant at Sophos, said many computer users are likely to be tempted to open the attachment because of the feverish interest in the King of Pop's sudden death.

"But sensible computer users should by now be well aware that cybercriminals will be quick to exploit news events to spread malware and spam," he said.

PHOTO



iCub Robot

Picture of the iCub robot taken on July 1, 2009 during its presentation at the Bron research institute, near Lyon, the first French research lab, which is part of a EU-funded Robot Cub project. The iCub robots are about the size of three-year-old children, with highly dexterous hands and fully articulated heads and eyes. They have hearing and touch capabilities and are designed to be able to crawl on all fours and to sit up.

PHOTO: AFP