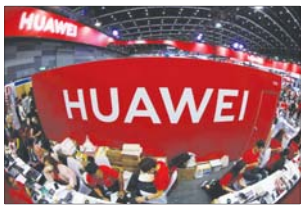
Green fuel

The US space agency NASA announced Monday that it would test for the first time a kind of "green" non-toxic fuel on a test satellite this month, Xinhua News Agency reported.

Huawei executive says goal to be world's top phone maker some time off

China's Huawei Technologies Co. Ltd. will need more time to become the world's largest smartphone maker, a goal it originally aimed to achieve in the fourth quarter of this year, a senior executive said on Tuesday.

"We would have become the largest in the fourth quarter (of this year) but now we feel that this process may take longer," said Shao Yang, chief strategy officer of Huawei Consumer Business Group, without elaborating on reasons, Reuters reported.



JORGE SILVA/REUTERS

Huawei currently sells 500,000 to 600,000 smartphones a day, he said in a speech at the CES Asia technology show in Shanghai.

The comments came after the United States put Huawei on a blacklist last month that barred it from doing business with US companies on security grounds without government approval, prompting some global tech companies to cut ties with the world's largest telecommunication equipment maker.

The company in January said it could become the world's biggest-selling smartphone vendor this year even without the US market. It was the second-biggest vendor in the first quarter, behind South Korea's Samsung Electronics Co. Ltd., according to research and advisory firm Gartner.

Analysts estimate the recent US sanctions could push Huawei's smartphone shipments down as much as a quarter this year and cause its handsets to disappear from overseas markets.

Human staff will always be needed, Amazon insists

Amazon's warehouses will always need human staff, the firm's chief robotics technologist told the BBC.

The company said it had deployed more than 200,000 warehouse robots working in around 50 of its locations.

But despite Amazon investing heavily in advanced robotics, Tye Brady said the firm's centers would never reach the point where they could be fully automated.

"Not at all. One ounce of my body just doesn't see that," he said.

"The way that I think about this is a symphony of humans and machines working together, you need both.

"The challenge that we have in front of us is how we smartly design our machines to extend human capability."

Brady was speaking to the BBC at Re:Mars, an Amazon event intended to showcase the firm's latest work in machine learning, automation, robotics and space.

He told the BBC the suggestion that robotics and AI would replace humans was a 'myth'.

"It's a reframing of your relationship with machines, right?

"You extend human capability. And when you gain productivity, then you have the ability to create new jobs that were unimaginable five years ago."

YOUTUBE

'Stop BEZOS Act'

But the nature of those jobs has been harshly criticized.

The UK-based GMB trade union organized a worker strike last November, describing conditions for employees at Amazon's warehouses as 'inhuman'.

"They are breaking bones, being knocked unconscious and being taken away in ambulances," said GMB General Secretary Tim Roache in a statement.

"We're standing up and saying enough is enough, these are people making Amazon its money. People with kids, homes, bills to pay — they're not robots."

In response, Amazon at the time said, "All of our sites are safe places to work and reports to the contrary are simply wrong."

But the firm is making changes in response to pressure. Earlier this year, Amazon increased its minimum wage for warehouse workers to $15 (£12) after considerable pressure from, among others, potential Democratic presidential nominee, Bernie Sanders.

He, along with Californian Congressman Ro Khanna, introduced legislation that would add an additional tax on corporations if their lowest paid employees relied on government programs, such as food stamps, to make ends meet.

The measure was titled 'Stop Bad Employers by Zeroing Out Subsidies', or 'Stop BEZOS', for short — a reference to Amazon's founder and chief executive, Jeff Bezos.

'Orange nightstand on wheels'

One of the company's announcements was Pegasus, a new robot that is being used in the firm's 'sortation centers' — the last step before a package is handed off to a delivery company.

"Resembling an orange nightstand on wheels, the two-feet-high, three-feet-wide Pegasus drive is Amazon's newest robot designed to create greater efficiency in its sortation process so customers can receive their orders even faster," the firm said in a blog post.

An accompanying video showed humans placing packages on to the robot, which then carried it, autonomously, to another location ready to be taken out for delivery.

The system is able to work out the quickest route for the robots to take, taking into account the hundreds of other robots moving around at the same time. A 'flow control specialist' monitors the movements of up to 800 Pegasus robots at once.

The company also announced it had made Xanthus, an updated version of its pallet-moving robot used in fulfilment centers.

The firm said its robots had to date stacked more than two billion plastic storage boxes, known as totes.

But one task robots still struggle greatly with is picking up individual objects of varying shapes and standards — which is still a key job of the human worker, particularly in the areas of Amazon's business that deal with food handling.

"It's not humans versus machines at all," Brady told the BBC.

"It's humans and machines working together to achieve a task."

Astronomers: Elon Musk's satellite constellation may ruin night sky

SpaceX Starlink satellites

engadget.com

A US astronomical organization expressed concern on Monday over Elon Musk's Internet constellation project, fearing that too many bright artificial satellites will ruin the night sky and affect astronomical observations.

The US private space company SpaceX, founded by Musk, launched its first batch of 60 Starlink satellites into space on May 23, in an effort to build a 12,000-strong satellite network capable of providing broadband Internet services, Xinhua News Agency reported.

Also, other satellite makers including Amazon are joining the competition to bring thousands of Internet satellites into space in coming years, which will dramatically increase the quantity of satellites orbiting the Earth which stands at only about 5,000 currently.

"I, like many astronomers, am very worried about the future of these new bright satellites," said Megan Donahue, president of the American Astronomical Society (AAS).

They may create the potential for "substantial adverse impacts to ground-and space-based astronomy," including "significant disruption of optical and near-infrared observations by direct detection of satellites in reflected and emitted light; contamination of radio astronomical observations by electromagnetic radiation in satellite communication bands; and collision with space-based observatories," according to an AAS statement.

The Royal Astronomical Society in London expressed similar concern, saying in a statement last week that "initial images of the constellation suggest that they will exhibit frequent reflective flaring, where transient alignment with sunlight leads to temporary surges in brightness."

Cees Bassa, an astronomer of the Netherlands Institute for Radio Astronomy, made his own calculations. The impact of about 1,600 Starlink satellites to be deployed in the first stage of Starlink project is that about 84 satellites would be above the horizon at any time at latitude 52 degrees and up to 15 of those visible during twilight and the entire summer.

Musk wrote in a tweet at the end of May that "potentially helping billions of economically disadvantaged people is the greater good," highlighting Starlink project's goal in providing Internet services to remote areas on Earth.

But "if we need to tweak sat orientation to minimize solar reflection during critical astronomical experiments, that's easily done," Musk wrote.

"There appears to have been no consultation between SpaceX and the scientific community in advance of the Starlink launch, though since initial press reports we note that Elon Musk has responded indicating he wishes to minimize the impact on astronomy," according to the statement of The Royal Astronomical Society.

"The natural night sky is a resource not just for astronomers but for all who look upward to understand and enjoy the splendor of the universe, and its degradation has many negative impacts beyond the astronomical," said Jeffrey Hall, chair of the AAS Committee on Light Pollution, Radio Interference, and Space Debris.

UN panel: Connect half the world, and $20-phones can help

An independent UN panel called on Monday for much greater cooperation to bring digital technology to roughly half the world's people, and a senior Google executive said mobile phones with Internet access are being created to sell for about $20 that can help make this possible.

Google Vice President Vinton Cerf said at a news conference after the panel's report was officially launched that "it's going to cost a lot of money" to end the digital divide, The Associated Press reported.

But without driving down costs of phones and communications, he said, "We won't succeed in getting the other 4.5 billion, or 3.5 billion, people online."

Nonetheless, Cerf was optimistic.

"I think that we're going to see the investment made primarily out of pure, simple incentive on the business side and demand on the consumer side," he said.

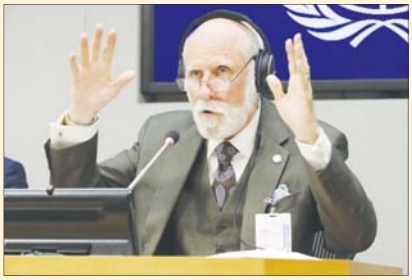
He said the new cheaper cellphones won't have all the features of a $1,000 smartphone, "but they have enough to be useful — they have enough to get access to the content of the Internet and the applications that it offers."

Cerf is one of 20 members of the panel established by the UN Secretary General Antonio Guterres in July 2018 to advance a global dialogue on how the world can work better together to realize the potential of digital technologies to advance the well-being of all people while mitigating their risks.

It is led by Melinda Gates, co-chair of the Bill & Melinda Gates Foundation, and by Jack Ma, executive chairman of China's Alibaba Group.

"We are living at the dawn of a new digital era," Ma said in a statement.

"Global cooperation among all parties — private sector, government, citizens, academics and civil society — is needed to use technology to achieve more prosperity, more opportunity, and more trust for people around the world."



RICHARD DREW/AP

Vinton Cerf, vice president and Chief Internet Evangelist for Google, answers a question during a news conference at United Nations headquarters in New York, NY, the US, on June 10, 2019.

Cerf, who is also Google's 'Chief Internet Evangelist,' said the most significant places without access to digital technology are in rural areas, not only in countries in Africa but in the United States, where perhaps 10 percent to 15 percent of the population doesn't have reliable Internet access.

In addition to costs, he said, having Internet applications that are useful is also a problem. It's not helpful if on the web "you can discover a plumber in New York but you happen to be in Bogota," and you can't find much in the language you speak, Cerf said.

Norway's Minister of Digitalization, Nikolai Astrup, also a panel member, said he strongly believes new technologies can help developing countries make 'that quantum leap' to achieving UN goals for 2030, including ending extreme poverty while protecting the environment.

"Digital technology is no longer a luxury," he said.

"It is essential for development, also for a developed country like Norway."

Whatever the cost, Astrup said, it will be overshadowed by the benefits of improving people's lives, solving some major global challenges and using big data, for example, to predict and prevent famine.

But Gates said in a statement that "digital technologies can help the world's poorest people transform their lives, but only if we are willing to address the inequalities that already keep them from fully participating in the economic and social lives of their countries."

The report recommends that every adult in the world have affordable access to digital networks and digital financial and health services by 2030.

But the panel also cautioned that growing opportunities from digital technologies "are paralleled by stark abuses and unintended consequences." It noted the serious problem of harmful content on social media and challenges to privacy, and it called for more effective action to prevent the erosion of trust by the proliferation of irresponsible uses of cyber capabilities.

The panel also urged Guterres to conduct a global review of how human rights apply to digital technologies.

Panel member Nanjira Sambuli of Kenya, who is a senior policy manager at the World Wide Web Foundation, said a key recommendation is that technology companies "shouldn't only consult on the human rights element as an afterthought."

"They have to start figuring out among themselves the proactive steps to engage at every step of the way on the human rights implications," she said.

Guterres said that every day he sees how digital technology can advance the UN's mission to promote peace, human rights and development — but also "news of the disruption digital technology can cause and the threats it can bring to that mission."