

Technology

Meet the virtual vigilantes who bust human traffickers from their laptops

Authorities with limited digital expertise struggle to stop tech-savvy criminals

LONDON: When not detecting intelligence threats to oil rigs and dams, Sergio Caltagirone spends his spare time hunting a different kind of predator - traffickers trading in human beings, from war-torn Syria to sleepy US suburbs. The Seattle-based computer scientist, who previously worked for the US Department of Defense, Microsoft and NASA, is one of a new breed of digital hacker sleuths who are saving lives by tracking down traffickers and rescuing victims on the internet.

"It's just like any other business in the world," said Caltagirone, who set up the Global Emancipation Network (GEN) with his wife, Sherrie, two years ago, to analyze data to help law enforcers counter human trafficking. "If you know how to find it, you will see it almost everywhere - almost every major site has some component of trafficking in it," said Caltagirone, whose day job is with the industrial cybersecurity firm Dragos.

Opinion is divided over the rise of hacker sleuths who deploy their cutting-edge knowledge, skills and experience to support governments that often lack the time, motivation and innovative tools to tap into criminal slavery networks. Human trafficking is among the world's largest international crime industries, with about 25 million people trapped in forced labor generating illicit profits of \$150 billion a year - and one which is moving increasingly online.

The US-based National Center for Missing and Exploited Children said in 2017 that almost three-quarters of suspected child trafficking reports it received from the public involved the sex advertising website Backpage.com. Backpage - described by campaigners as the country's largest online marketplace for child sex trafficking - was shut down in April and its founders were charged in a 93-count indictment, including knowingly facilitating prostitution.

But the years of lobbying that preceded the crackdown showed how authorities with limited digital expertise struggle to stop criminals who use technology at every

stage of their business, from recruiting via social media to tracking victims via webcam. "You have to know exactly where to go," said Sharon Nimirovski, head of White Hat, an Israeli cyber security firm staffed by former military intelligence agents.

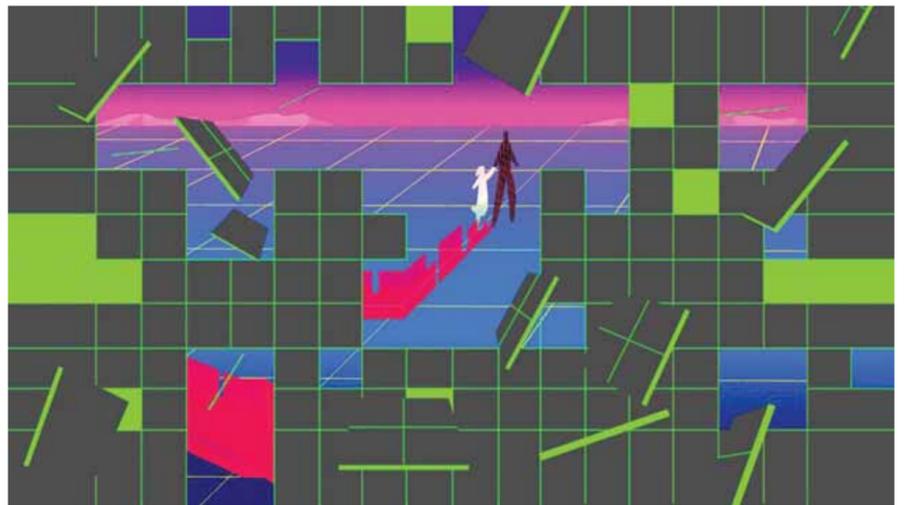
"You have to go undercover and live the hacker cyber scene, know its structure and pretend to be someone you are not in order to retrieve the data that you are looking for." While the precise methods used by hacker activists are veiled in secrecy, Nimirovski said his team has used false digital identities to infiltrate hidden cybercrime sites to gather information on pedophiles. "Just like the police work in the physical world, White Hackers act in the digital dimension," he said, adding that his White Hat Hackers - or hackers working for good - share the criminal evidence they unearth with authorities.

Dark Web

GEN, which is run by volunteers, collects text and images from the open and dark web - a part of the internet invisible to search engines and only reachable using specialized software - to look for patterns that could indicate trafficking. It shares this suspicious online activity for free, via its Minerva platform, with law enforcement, researchers and anti-trafficking charities that often do not have the capabilities to trawl the online black market and message boards.

The software allows investigators to search through data from millions of - often hidden - internet pages using keywords, usernames and phone numbers to find out what other sites their suspects visit and who else they communicate with, GEN said. Digital evidence gleaned from visa blacklists, bitcoin transactions and sex ads can help to bust traffickers by predicting where victims might go, via which routes and who is likely to buy or sell them, experts say.

"The earlier you move into the kill chain, the more effective your disruption becomes, and the more people you ultimately save," said Caltagirone, GEN's technical director. One of the routes GEN is tracking closely is that



of people moving to Eastern Europe from Syrian refugee camps, often in the hope of finding lucrative jobs advertised on fake websites. "Of course these victims are going to be very willing," said Caltagirone, highlighting how technology has not only made it easier for migrants to reach Europe, but also enabled criminals to trick people into trafficking themselves and their families. "This is where you'll get parents who sold their children."

Online vigilantes

Yet caution is required as hackers may not have the training needed to collect evidence that is admissible in court, said Nazir Afzal, a lawyer and former British chief prosecutor who fought major cases involving sexual slavery and child abuse. "If, in some (human trafficking) cases, hacking leads to the early detection of a big vulnerability - that's fine, I suppose," said Rob Wainwright, a cyber security expert and ex-head of Europe's policing agency Europol. "But we have to be very careful about encourag-

ing online vigilantism," he added. "We have to do things in the right way." But others say that private digital sleuths can play a vital role, particularly when working together with the police. "Law enforcement, in many countries, either lack the financial resources or human resources or both needed to perform cybercrime investigations efficiently and swiftly," said Joyce Hakme, a cybercrime expert with the think tank Chatham House.

"Most, if not all, cybercrime investigations require public-private partnerships and getting the right experts on board," she said in emailed comments, adding that ethical hackers working with the police can have a big impact in cracking cases. GEN is confident that cyber hackers have a key role to play in combating trafficking - and boosting prosecutions, which numbered about 9,000 in 2016, according to the US government. "We're not here to save the world," said Caltagirone. "But GEN is here to make people who are saving the world even better at doing it." — Reuters

Thailand banks on tech to end slavery at sea

SAMUT SAKHON/BANGKOK: Enslaved on a Thai fishing vessel for 11 years, Tun Lin saw his fellow workers lose their minds one after another, with one fisherman jumping into the sea to end his life. Some would start murmuring or laughing to themselves as they worked day and night in Indonesian waters on the cramped boat, often surviving on fish they caught and drinking water leaking from an onboard freezer.

"It was like a floating prison - actually, worse than prison," said the Burmese fisherman, who was sold into slavery, told the Thomson Reuters Foundation in Samut Sakhon, a Thai fishing hub some 40 km southwest of the capital Bangkok. The 36-year-old, who was rescued in 2015 after losing four fingers and being stranded on a remote island for years without pay, is now lobbying for fishermen's rights with the Thai and Migrant Fishers Union Group (TMFG).

Under growing consumer pressure, Thailand has introduced a raft of modern technologies since 2015 - from satellites to optical scanning and electronic payment services - to crack down on abuses in its multibillion-dollar fishing industry. It is one of a growing number of countries using innovation to deal with modern slavery, from mobile apps in India to blockchain in Moldova, but experts warn against over-reliance on tech as a silver bullet without stronger workers' rights.

"Technology can be a double-edged sword," said Patima Tungpuchayakul, co-founder of the Labor Rights Promotion Network Foundation, a Thai advocacy group. "It has become an excuse the government is using to justify they have done

something, but in practice they don't use it to solve the problem." More than half the estimated 600,000 industry workers are migrants, often from poor neighboring countries such as Cambodia and Myanmar, United Nations (UN) data shows.

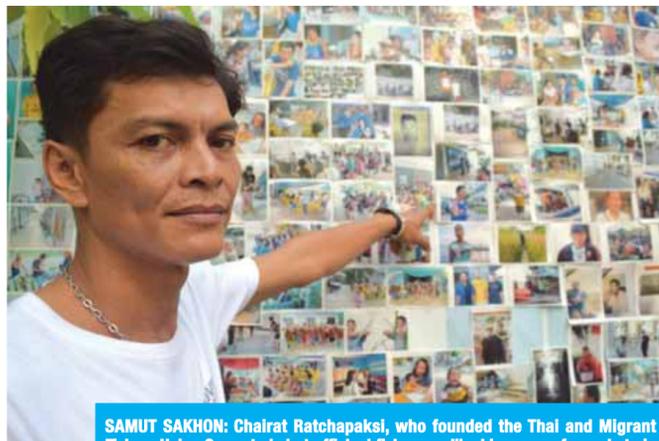
Tracking devices

After the European Union threatened to ban fish exports from Thailand, and the US State Department said it was failing to tackle human trafficking, the Southeast Asian country toughened up its laws and increased fines for violations. It banned the use of workers aged below 18 and ordered fishermen to be given contracts and be paid through electronic bank transfers.

Authorities ordered Thai vessels operating outside national waters to have satellite communications for workers to contact their families or report problems at sea, plus tracking devices to spot illegal fishing. "We are serious in law enforcement regarding human trafficking and illegal labor cases," said Weerachon Sukhontapatipak, a Thai government spokesman. "There might not be abrupt change ... it will take time."

Thailand is also rolling out an ambitious plan, using iris, facial and fingerprint scans to record fishermen's identities to make sure they are on the boats they are registered with and help inspectors spot trafficking victims. Rights groups meanwhile have tried to use satellites to pinpoint the location of ships that remain at sea for long periods, potentially indicating enslavement. But human trafficking expert Benjamin Smith said using satellites to tackle slavery at sea was not easy unless there is a lead on where to track in the vast ocean.

"I think people underestimate the size of the ocean and the ability to pinpoint where something as small as a boat is," Smith from the U.N. Office on Drugs and Crime (UNODC) said. "If you have good information, intelligence, then satellite images can be good ... It has to be a small part of a much bigger effort." Smith also



SAMUT SAKHON: Chairat Ratchapaksi, who founded the Thai and Migrant Fishers Union Group to help trafficked fishermen like him, poses for a photo in front of pictures of rescued trafficking victims. — Reuters

highlighted difficulties prosecuting cross-border trafficking cases and maritime police funding shortages, adding that continued consumer pressure on firms to clean up their supply chains could be a potent force to help end slavery. "That's probably the best way you can start," he said.

Good news

Fishermen remain at risk of forced labor and the wages of some continue to be withheld, the International Labor Organization (ILO) said in March. To combat slavery, firms must improve workers' lives, rather than cutting labor costs and recruiting informally to meet demand for cheaper goods, experts say.

"Smaller owners are getting squeezed, and still rely on brokers and agents, who dupe workers and keep them ignorant of their rights and conditions on the boat," said Sumai Phasuk, a researcher with lobby group Human Rights Watch in

Bangkok. Workers are set to become more vocal with the May launch of the Fishers' Rights Network, which aims to combat abuses, backed by the world's largest canned tuna producer, Thai Union, and the International Transport Workers' Federation (ITF).

"Without enforceable rights at the workplace and the strength that comes from being represented by a union, labor rights violations and the mistreatment will continue," said Johnny Hansen, chairman of ITF's fisheries section. Thailand's ratification this month of the ILO protocol on forced labour also offers hope. It is the first Asian country to promise to combat all forms of the crime, including trafficking, and to protect and compensate victims. "We have ... committed to changing the law to allow workers to form unions, so we can work together to solve the problems," said Thanaporn Sriyakul, an advisor to the deputy prime minister. —Reuters

Australia telecom giant Telstra to axe 8,000 jobs

SYDNEY: Australia's dominant telecommunications company Telstra yesterday announced plans to axe 8,000 jobs-a quarter of its workforce-as part of a drastic new strategy to cope with an increasingly competitive industry. The decision by the company, one of Australia's largest employers, is part of a shake-up targeting an extra Aus\$1 billion (US\$750 million) in cost-cutting by 2022, on top of Aus\$1.5 billion previously announced. It will also split its mobile and infrastructure divisions into separate businesses.

"In the future our workforce will be a smaller, knowledge-based one with a structure and way of working that is agile enough to deal with rapid change," said chief executive Andrew Penn. "This means that some roles will no longer be required, some will change and there will also be new ones created." The cuts come less than a month after Telstra said its 2017/18 earnings will likely be at the bottom of its guidance range of Aus\$10.1 billion to Aus\$10.6 billion, blaming increasing competition in

mobile and fixed broadband. That warning sent its shares tumbling to a more-than six-year low of Aus\$2.71. They had partially recovered since, but took another hit yesterday, closing 4.81 percent lower to Aus\$2.77.

CMC Markets chief market analyst Michael McCarthy said the restructuring plan may not be enough to please investors, who have watched Telstra's share price almost halve in the past year. "Some investors think the Telstra patient needs radical surgery, and could view today's measures as band-aids," he said. Telstra employs 32,000 people across 20 countries, according to its most recent annual report. Of the jobs to go, one in four will be executive and middle management roles.

Prime Minister Malcolm Turnbull called the announcement "heartbreaking" for the workers, but said he was confident most would find other jobs. "While one company reduces its workforce, there are other companies and new companies, including other telecommunication companies, creating new opportunities and jobs," he said.

Tipping point

Penn said the company had to take action to stay on top in a highly competitive market where technology was evolving quickly. "In this environment traditional companies that do not respond are most at risk. "We have worked hard preparing Telstra for this market dynamic while ensuring we did not act precipitously. However, we are now at a tipping point where we must act more bold-

ly if we are to continue to be the nation's leading telecommunications company."

Telstra has a range of businesses including fixed broadband, mobile, data and IP, network application services and digital media. Part of its new strategy will see it create a wholly-owned standalone infrastructure business unit from July 1. Called Telstra InfraCo, it will comprise the firm's fixed-network infrastructure including data centers, non-mobiles related domestic fiber, international subsea cables, exchanges, poles, ducts and pipes. —AFP



MELBOURNE: A man (R) sits by the entrance to a Telstra store on Melbourne's central business district. — AFP

EU copyright law passes key hurdle

BRUSSELS: A highly disputed European copyright law that could force online platforms such as Google and Facebook to pay for links to news content passed a key hurdle in the European Parliament yesterday. Major publishers have pushed for the reform, seeing it as an urgently needed solution against a backdrop of free online news that has decimated earnings for traditional media companies. The parliament's powerful Legal Affairs Committee narrowly passed the reform, with 13 votes in favor and 11 against in a ballot that was kept secret given the bitter divisions on the issue.

"An important step for the future of the creative industries in Europe!" said German MEP Christian Ehler, from the right-of-centre EPP group. "There is a big problem if all those who bring our cultural diversity in Europe to life... can no longer live from their work because online platforms are not prepared to involve them properly," he said in a statement. But several MEPs were against the idea, saying it would help only the most widely known news providers to the detriment of independent and start-up companies, effectively curbing the right to free speech.

The committee also passed a law that makes online platforms legally liable for copyrighted material put on the web by users, which critics warn will lead to blanket censorship by tech giants, including Google's Youtube, Facebook's Instagram and Twitter. "These measures would seriously undermine basic internet freedoms," said MEP Julia Reda, from the Greens group. "Putting the special interests of large media companies ahead of our ability to participate freely online is unacceptable," she said.

That reform passed with 14 in favor and 9 against. The reforms, which are part of a much larger overhaul of European copyright law, will now go to a full plenary vote in parliament, expected in July. The EU's 28 member states must also approve the law and they have struggled to come up with their own version of the copyright changes amid their own deep divisions. —AFP

Russia warns against Trump's plans for space domination

MOSCOW: Russia yesterday expressed alarm over US President Donald Trump's call for the United States to dominate space exploration and his plan to create a separate branch of the military called a Space Force. Russian foreign ministry Maria Zakharova said at a briefing that Russia "noted the US president's instructions... to separate space forces from the air force," saying "the most alarming thing about this news is the aim of his instructions, namely to ensure (US) domination in space."

Trump on Monday said at a speech in the White House that "America will always be the first in space" and "we don't want China and Russia and other countries leading us." He also called for the Pentagon to create a new "Space Force" that would become the sixth branch of the American military, although this requires Congressional approval to take effect. Zakharova warned that the US is "nurturing plans to bring out weapons into space with the aim of possibly staging military action there."

"This is not based on guesswork, this is understanding the realities," she insisted. US military build-up in space "especially after the appearance of weapons there, would have a destabilizing effect on strategic stability and international security," Zakharova warned. Russia takes a "diametrically opposite position" that space must be used for "peaceful aims," she said. —AFP