Great Firewall
Chinese Censors Of Internet Face 'Hacktivists' in U.S.

(Programs Like Freegate, Built By Expatriate Bill Xia, Keep the Web World-Wide Teenager Gets His Wikipedia)

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Surfing the Web last fall, a Chinese high-school student who calls himself Zivn noticed something missing. It was Wikipedia, an online encyclopedia that accepts contributions or edits from users, and that he himself had contributed to.

The Chinese government, in October, had added Wikipedia to a list of Web sites and phrases it blocks from Internet users. For Zivn, trying to surf this and many other Web sites, including the BBC's Chinese-language news service, brought just an error message. But the 17-year-old had loved the way those sites helped him put China's official pronouncements in perspective. "There were so many lies among the facts, and I could not find where the truth is," he writes in an instant-message interview.

Then some friends told him where to find Freegate, a software program that thwarts the Chinese government's vast system to limit what its citizens see. Freegate -- by connecting computers inside of China to servers in the U.S. -- enables Zivn and others to keep reading and writing to Wikipedia and countless other Web sites.

Behind Freegate is a North Carolina-based Chinese hacker named Bill Xia. He calls it his red pill, a reference to the drug in the "Matrix" movies that vaulted unconscious captives of a totalitarian regime into the real world. Mr. Xia likes to refer to the villainous Agent Smith from the Matrix films, noting that the digital bad guy in sunglasses "guards the Matrix like China's Public Security Bureau guards the Internet."

Roughly a dozen Chinese government agencies employ thousands of Web censors, Internet cafe police and computers that constantly screen traffic for forbidden content and sources -- a barrier often called the Great Firewall of China. Type, say, "media censorship by China" into emails, chats or Web logs, and the messages never arrive.

Even with this extensive censorship, Chinese are getting vast amounts of information electronically that they never would have found a decade ago. The growth of the Internet in China -- to an estimated 111 million users -- was one reason the authorities, after a week's

silence, ultimately had to acknowledge a disastrous toxic spill in a river late last year. But the government recently has redoubled its efforts to narrow the Net's reach on sensitive matters.

It has required all bloggers, or writers of Web logs, to register. At the end of last year 15 Internet writers were in jail in China, according to the Committee to Protect Journalists, a New York group. China also has gotten some U.S. Internet companies to limit the search results they provide or the discussions they host on their Chinese services. A tiny firm Mr. Xia set up to provide and maintain Freegate had to lobby computer-security companies such as Symantec Corp., of Cupertino, Calif., not to treat it as a virus.

In response to China's crackdown, and to restrictions in many Middle Eastern countries as well, a small army has been mustered to defeat them. "Hacktivists," they call themselves.

Bennett Haselton, a security consultant and former Microsoft programmer, has developed a system called the Circumventor. It connects volunteers around the world with Web users in China and the Middle East so they can use their hosts' personal computers to read forbidden sites.

Susan Stevens, a Las Vegas graphic designer, belongs to an "adopt a blog" program. She has adopted a Chinese blogger by using her own server in the U.S. to broadcast his very personal musings on religion to the world. She has never left the U.S., but "this is where technology excels," she says. "We don't have to have anything in common. We barely have to speak the same language."

In Boston, computer scientist Roger Dingledine tends to Tor, a modified version of a U.S. Naval Research Laboratory project, which disguises the identities of Chinese Web surfers by sending messages through several layers of hosts to obscure their path. In addition to the Department of Defense, Mr. Dingledine had also received funding from the Electronic Frontier Foundation, a nonprofit group that supports free speech online.

Freegate has advantages over some of its peers. As the product of ethnically Chinese programmers, it uses the language and fits the culture. It is a simple and small program, whose file size of just 137 kilobytes helps make it easy to store in an email program and pass along on a portable memory drive.

Mr. Xia says about 100,000 users a day use Freegate or two other censorship-defeating systems he helped to create. It is impossible to confirm that claim, but Freegate and similar programs from others, called UltraReach and Garden Networks, are becoming a part of the surfing habits of China's Internet elite in universities, cafes and newsrooms.

A Big Booster

Freegate has a big booster in Falun Gong, the spiritual group China banned in 1999 as subversive. It is a practice of meditations and breathing exercises based on moralistic teachings by its founder, Li Hongzhi. Chinese expatriates -- marrying U.S. free-speech politics with protests over

persecution of Falun Gong practitioners in China -- have focused their energy on breaking China's censorship systems. They have nurtured the work of Mr. Xia, himself a Falun Gong follower, and several other programmers.

Freegate also gets a financial boost from the U.S. government. Voice of America and Radio Free Asia, part of the federal government's Broadcasting Board of Governors, pay Mr. Xia and others to send out emails featuring links to their stories.

Kenneth Berman, manager of the anticensorship office of the board's International Broadcasting Bureau, declines to say how much it compensates Mr. Xia's company. He says the bureau pays less than $5 million a year to companies to help combat Internet censorship abroad, especially in China and Iran.

"Our policy is to allow individuals to get anything they want, when they want," Mr. Berman says. "Bill and his techniques help us do that."

Human Rights in China, a New York nonprofit group funded by individuals and charities founded by Chinese scientists and scholars in 1989, also helps fund Mr. Xia's enterprise, which runs on a budget of about $1 million a year, and pays it to send out emails.

The resources behind Freegate and others hacktivists could increase if Congress revives a bill to create an Office of Global Internet Freedom. U.S. Internet companies have drawn strong criticism in Congress for compliance with Chinese Web restriction, and hearings on their activities are set for Wednesday. Microsoft Corp., Redmond, Wash., Google Inc., Mountain View, Calif., and Yahoo Inc., Sunnyvale, Calif., all say that they abide by local laws. Microsoft's general counsel said this month that the software giant shuts down personal blogs only if it receives a "legally binding notice from a government."

Several Chinese agencies with jurisdiction over the Internet, including the ministries of Public Security, State Security, and Information Industry, didn't respond to faxed questions about Internet filtering. The State Council Information Office said the government would hold a news conference to address "Internet security" issues early this week. It didn't respond to specific questions. A position paper issued in 2000 by the National People's Congress said it is a criminal offense to use the Internet to "incite subversion," to "divulge state secrets" or to "organize cults." The paper said the laws were needed "to promote the good and eliminate the bad, encourage the healthy development of the Internet [and] safeguard the security of the State and the public interest."

It is this attitude that drives Mr. Xia's counterattack. Moving to the U.S. a decade ago to begin graduate studies in physics, he says, he never imagined becoming either a dissident or a programmer. Slowly, he became more uncomfortable with China's restriction of public discourse. In the U.S., he watched taped footage of the 1989 Tiananmen Square assault on protesters.

Mr. Xia says he taught himself computer science out of textbooks and in 2002 set up a small company called Dynamic Internet Technology Inc., hiring 10 people to help send out emails for such clients as Voice of America. He says he takes no salary, living a modest life off his savings and his wife's earnings.

Often working alone at his computer until 3 a.m., Mr. Xia lives like a secret agent, communicating with a small team of volunteer programmers across North America over secure email or coded phone calls. He combs his house with a device to detect the loose radio waves of bugging devices. In his 30s, Mr. Xia asked that the city in which he lives and works not be disclosed so he can maintain a low profile.

The programmer says he dashes to his computer as soon as he wakes up each morning, to make sure his system is still intact. He keeps a raft of programs running on his oversize flat-screen monitor, testing Freegate through a dozen different Web browsers and instant-message and chat programs.

Freegate works by constantly changing the address of its U.S. servers so that China can't block the connection, and users like Zivn, the 17-year-old, can read and write at will. Zivn says he uses Freegate three to four times a week to read domestic and international news. Besides the BBC site he frequents Radio Free Asia and the Epoch Times, a newspaper that champions Falun Gong. All have Chinese-language news services normally blocked by China's firewall.

Zivn says he isn't a member of Falun Gong and describes his political slant as "neutral." He says he has read about North Korean leader Kim Jong Il's recent secret visit to China and the closure of a liberal Chinese magazine called Freezing Point. He says he has copied some foreign news reports onto his personal blog, which is available inside China and periodically gets blocked itself.

One user, who describes himself online as a 22-year-old who works in Chinese media, praises the software but adds that its use is "limited to a small group of people who are knowledgeable about computers and the Internet." Most Chinese, he says, "have not realized the harmful effects from network blocking." China's Internet control system, called Golden Shield, doesn't aim for complete control over information but rather to discover and plug major breaches in the firewall.

Nor can Freegate prevent self-censorship. Many Chinese surfers and bloggers, having a sense of the forbidden words and topics, check themselves before they cross the line.

Then, too, many Chinese are as frivolous in their Internet use as anyone else. Most of China's estimated 33 million bloggers write about entertainment, fashion and such, not the free-speech or police crackdowns. Still, Mr. Xia says he sees a rise in Freegate traffic after events such as democracy protests or corruption scandals, which the state-controlled press doesn't cover.

Freegate's Web site supports an effort by Falun Gong's Epoch Times to get Chinese citizens who belong to the Communist Party to renounce their membership, and the paper claims nearly eight million have signed a petition doing so. Many did so through Freegate, Mr. Xia says.

Mr. Xia says he gets a mountain of feedback. He convinced Symantec not to treat Freegate as a virus. "The users are not technical. They just say, 'It doesn't work!' and we have to ask them a lot of questions" to resolve problems, Mr. Xia says. He politely declines the help of volunteers inside China, fearing that they might be government spies or that they would be punished if discovered.

Getting Tips

Occasionally, he says, he gets tips from Chinese who say they have been given the job of maintaining the Internet restrictions. "One guy told us, 'Sorry, I participated in some efforts to block your software. I think it is not going to work in a few days,' " Mr. Xia says. "China may have many people working on the firewall, but for them it is just a job."

When Mr. Xia got into this work, the anticensorship movement's great hope at that time was dying. It was a program called Triangle Boy, which worked by connecting Chinese users to a regularly updated list of secret portals, called proxy servers, hosted overseas. It worked well until 2002, when China sped up its countering system to close those holes in its firewall within hours after noticing a leak. Short of resources and solutions, Triangle Boy couldn't keep up.

Similarly, with each new version of Freegate -- now on its sixth release -- the censors "just keep improving and adding more manpower to monitor what we have been doing," Mr. Xia says. In turn, he and volunteer programmers keep tweaking Freegate.

At first, the software automatically changed its Internet Protocol address -- a sort of phone number for a Web site -- faster than China could block it. That worked until September 2002, when China blocked Freegate's domain name, not just its number, in the Internet phone book.

The government accomplished that by actually taking over China's whole portion of the Internet naming system, the common directory that computers on the Internet use to talk with each other. It then diverted Freegate users from the company's North American servers to several addresses China had picked.

More than three years later, Mr. Xia still is amazed by the bold move, calling it a "hijacking." Ultimately he prevailed, through a solution he won't identify for fear of being shut down for good.

Confident in that fix, Mr. Xia continues to send out his red pill, and users like Zivn continue to take it. The teen credits his cultural and political perspective to a "generation gap" that has come of having access to more information. "I am just gradually getting used to the truth about the real world," he writes.