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China's Internet Paradox**Will China's Web, like its larger economy, comfortably combine extraordinary growth with government repression?**

On March 23, the day after Google pulled its search operations out of mainland China, a woman who uses the online pseudonym Xiaomi arose in her Shanghai apartment and sat down in her bedroom office for another day of outwitting Internet censorship. She leads a confederation of volunteer translators around the world who turn out Mandarin versions of Western journalism and scholarly works that are banned on China's Internet--and that wouldn't be available in Mandarin in any case. That day, working in a communal Google Docs account, she and her fellow volunteers completed translations of texts that ranged from a fresh New York Times interview with Google cofounder Sergey Brin to "The Limits of Authoritarian Resilience," a seven-year-old analysis of China's Communist Party from the Journal of Democracy.

What happened when Xiaomi hit "Post" reveals that the government's constraints have their limits. The pieces went live on a blog and a public Google Docs page. These links were broadcast to the nearly 4,000 people who follow her on Twitter (as @xiaomi2020), the 1,170 more who follow her on Google Buzz, and others on five Chinese Twitter clones. Although Blogspot and Twitter are blocked in China to those without circumvention software, anybody in the country can open the Google Docs page--at least for now. (The government did block Google Docs for a time last year but relented after protests from companies and universities.) Once posted, -Xiaomi's translations are often reposted 10,000 times or more on blogs and bulletin-board-style discussion sites. There, they can survive for various lengths of time, though the hosting services--which are required to self-censor--generally take them down. The total readership may be orders of magnitude higher than the number of repostings, since each post is presumably read by many people, some of whom also copy the translations into group e-mails.

Xiaomi takes steps to preserve her anonymity and avoid run-ins with the authorities. (Such encounters often start when police summon someone to the local station to "drink tea"--the euphemism for questioning designed to let people know they are being watched--and can end with imprisonment.) She uses Gmail (which is encrypted and hosted outside China) and technologies that make her computer's Internet Protocol address appear to come from the United States (the address changes frequently to thwart blocking). When she needs to talk, she uses the encrypted Internet voice service Skype--a version she installed in the United States, not one available in China that was found to allow surveillance.

What she achieves with the help of such tools is hardly the only example of free speech and protest percolating through China's censored Internet. In recent years Internet-based campaigns--efforts that often blossom on bulletin boards and blogs in hours or days--have pressured the Chinese government to release prisoners, launch investigations into scandals such as the kidnapping of boys conscripted into slave labor, and imprison corrupt government officials. "The Internet has empowered the Chinese people more than the combined effects of 30 years of [economic] growth, urbanization, exports, and investments by foreign firms," says Yasheng Huang, a China expert and professor of international management at MIT's Sloan School. "China may not have free speech, but it has freer speech, because the Internet has provided a platform for Chinese citizens to communicate with each other." And that communication can include criticism of the government.

China's attempts to suppress Internet speech have intensified. But they have intensified **partly because there's so much more material online--maybe overwhelmingly more--for the government to worry about.** China's Internet, like its economy in general, is exploding in size and complexity. The country now has a staggering **384 million Internet users**--nearly a quarter of the world total--**plus 750 million mobile-phone users**, many of whom use those phones to access the Web. That rapid growth of the network, coupled with the remarkable creativity and boldness of its users, is shaping the Chinese Web at least as powerfully as is government repression. "We underestimate the vitality of the Chinese Internet," says Ethan Zuckerman, cofounder of Global Voices, a blogging advocacy group. "We hear it is censored and therefore assume every page has a red background and text from the central propaganda agency. We badly underestimate how vital and how interesting some of those conversations can end up being. This is now the largest Internet, bigger than that of the United States. Why do we have a blind spot around this? We assume censored means 'Dead. Lifeless. Artificial.' What 'censored' actually means is 'really, really complicated.' "

A Higher Firewall

The Chinese government operates **the world's most sophisticated national Internet filtering system.** Though often called **the Great Firewall**, it is not one entity but, rather, a mix of strategies. Filters at the ISP level block banned Western websites (including -YouTube, Facebook, Twitter, Blogger, and the Guardian's site) and can block websites whose URLs contain any of an ever-growing list of banned keywords related to politically sensitive topics. The government stepped up its efforts in 2009, **especially before the 20th anniversary of the Tiananmen Square crackdown on June 4 and the 60th anniversary of China's National Day on October 1.** The regime even unplugged the entire Net in the Urumqi region to block reports of violent protests over the ethnically motivated murders of migrant workers. Finally, the government for a short time required that all computers be sold with porn filtering software known as Green Dam preinstalled. (Faced with international and domestic outrage when it emerged that the filter also blocked political speech--and was buggy and insecure regardless of its intended function--officials announced an indefinite delay.) It was a hacking attack that Google said had targeted the Gmail accounts of human rights activists that precipitated the company's March decision to stop censoring search results and shut down its site in mainland China.

To get around the blocks, **some people use tools such as Ultrareach, Dynaweb, and Tor** (see "Dissent Made Safer," May/June 2009), which enable them to connect to banned websites via proxy computers outside the country. But government censors have increasingly been blocking the proxies, too. And in truth, most Chinese Internet users don't bother with Western sites at all. **Over the past decade, homegrown alternatives to popular Western Web 2.0 sites have become extraordinarily popular. Instead of Facebook, China has Douban, whose users are generally anonymous and gravitate toward topics such as movie and book critiques rather than personal news. Instead of -YouTube, China has YouKu,** which naturally tilts toward Chinese topics. China's bulletin-board sites--led by QQ, the second most popular website in China and the 10th

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most popular in the world--are teeming with debates over current events. Hal Roberts, a fellow at the Berkman Center for Internet and Society at Harvard and a leading researcher on Internet filtering and surveillance, **says that sites hosted in China account for about 95 percent of page views** there. "Whereas a country like Turkey will get upset at a video about the Armenian genocide and block YouTube," he says, **"China blocks YouTube but also gives people YouKu, which is censored, but which they say is better anyway, natively in Mandarin, and run by Chinese people."**

The Chinese government allows these sites to flourish only because they have agreed to censor themselves. But the forbidden topics are not clearly defined, and the extent of the censorship varies. "In China everyone knows there are hidden rules," says Isaac Mao, a Chinese software engineer and venture capitalist based in Shanghai, who became one of China's first bloggers in 2002. Criticism of the regime, promotion of democracy, and advocacy of human rights or Tibetan independence are often censored; so is discussion of specific incidents and scandals ranging from the Tiananmen Square crackdown of 1989 to the Sichuan earthquake scandal of 2008, in which the collapse of many shoddily built school buildings contributed to the deaths of more than 5,000 children. The Chinese government increasingly imposes heavy fines or shutdowns--or even jail time for principals--to make local Web companies follow these implicit rules. A few years ago, a government officer would "call your phone, ask you to delete some article in one day, or in [a few] hours," says Huo Ju, a computer programmer in Shanghai, who runs a technology blog that is blocked in China. "The Chinese government didn't close websites or companies. But in 2009, many websites [were] closed. They also delete articles, and they try to control opinion direction." Meanwhile, the government rewards good behavior. Rebecca MacKinnon, an expert on the Chinese Internet who is now a visiting fellow at Princeton University's Center for Information Technology Policy, wrote of attending a government event in Beijing last November at which executives from 20 Chinese Internet companies were awarded the 2009 China Internet Self-Discipline Award for censoring themselves in the interest of "harmonious and healthy Internet development." "China can use offline methods of control," says Roberts. "At the end of the day, it is more effective to send government agents to people's doors than to filter the Net."

China's users filter themselves, too. The Tianya.cn bulletin board, with more than 35 million members, manages a kind of wiki-style self-censorship. Posts are ruled on by communities of "board masters" (ordinary users elected by other members); if they cut a post, the poster can appeal to a higher-tier editor in a complaint forum. A board master can be dismissed if enough people complain. This in some sense mirrors the way Chinese society works, and Donnie Dong, a Chinese lawyer and Internet scholar who is now a fellow at the Berkman Center, says it is readily accepted. "The reality is that the condition in China has changed the structure of the Internet into something distinct," he says. He calls it the "Cinternet"; Xiaomi and some others call it the "Chinternet." Either way, says Dong, "the law, including statutes and the 'living law,' is making and changing the code."

Protests go viral

But this living law has neither checked the overall expansion of Web access nor stanching the online activism that tests the limits of censorship--especially on internal Chinese sites. The Chinese search engine Baidu offers discussion forums that--although cleansed of political topics--are extremely popular. One day last summer, an anonymous member posted something on a Baidu forum devoted to the online game World of Warcraft, and it became an Internet meme: Jia Junpeng, your mother wants you to go home to eat. The cheeky, mysterious sentence received seven million hits and 300,000 comments on the first day. People built humorous dialogues around it; graphics made it appear as if the command had been uttered by Barack Obama, Saddam Hussein, or Chinese military officials posing for a formal Communist Party portrait.

Then the goofy phenomenon took a sharp political turn. Around the time the post originally appeared, a famous blogger named Guo Baofeng was arrested for posting allegations of an official cover-up in the brutal rape of a 25-year-old woman named Yan Xiaoling in Mawei, a district in the city of Fuzhou. She later died of her injuries.

Before his incarceration, Guo managed to squeeze off a couple of short blog posts. "I have been arrested by Mawei police SOS," read one. Even in repressive China, there's no law against exhorting people to go home to their mothers. Bloggers began calling on people to send postcards to the Mawei police: Guo Baofeng, your mother wants you to go home to eat. Similar messages sprouted on bulletin-board sites. A few days later, Guo was released; he later attributed his freedom to the Internet-generated "postcard movement." The use of Web 2.0 in the Guo case "is fascinating, and it is also revealing about some of the general features of online social activism in China today," says Guobin Yang, a sociologist and China Internet scholar at Columbia University. "Compared with the student movement in 1989, where people had large-scale gatherings, today's activists work on special issues, like calling for the release of a particular person or dealing with corruption or environmental pollution through very creative means. Much of this is happening on the Internet, with a lot of impact."

Sometimes the Chinese Web simply amplifies citizen outrage, forcing government action. In 2007 a local newspaper in Henan province reported a kidnapping scandal: boys were being snatched to work as slaves in brick kilns. The issue failed to excite the interest of national authorities until a woman posted a letter about it on a local online bulletin board. The letter was cross-posted to Tianya and went viral, garnering 580,000 hits there and many more on other forums, according to an analysis of the case by Yang. The attention prompted the central government to investigate and prosecute two people. And in Nanjing, amid anger over high housing prices, local bloggers broadcast the fact that Zhou Jiugeng, a former director of a government property-management bureau, was driving to work in a Cadillac and wearing an expensive watch. The revelation led to an investigation--and an 11-year prison sentence for Zhou, who was found to have been accepting bribes.

Even lawyers and judges are testing the limits. Anne Cheung, a law professor and Internet researcher at Hong Kong University, says she and her colleagues are finding previously unheard-of criticism of the regime. One lawyer, Xu Zhiyong, often blogs about the plight of citizens who try to lodge legal complaints in Beijing but end up in secret jails. Some government officials are criticized by name. Criticism of the Chinese Communist Party used to be "a sensitive area," Cheung says, "but now, somehow, the authorities will tolerate that." In general, "if you have the courage to raise your voice, then you may be able to get something out of the Internet and Web 2.0," she adds.

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Internet Consensus?

A swiftly growing Chinese Internet; restrictions by the central government; a degree of collusion with those restrictions among Web companies and the public, so long as they are not onerous to business; a calculation by the government that permits some dissidence: all this might amount to an Internet version of the Beijing Consensus, a catchall term for alternative models of economic development that take China's success as an example. The Chinese government has a long tradition of managing dissent. And Cheung thinks the two trends--growing governmental control of the Web on the one hand and online growth, creativity, and activism on the other--will continue pushing and pulling on each other for some time. Progress toward Internet openness "may be incremental, not moving in a linear direction," she says. "I would say this is consistent with Chinese style--loosening sometimes, but tightening sometimes. You can't really predict."

To break the stalemate and tear down the Great Firewall, some activists and members of Congress have advocated that the West push on two fronts.

- One is purely technological: make available far more proxy computers, those neutral IP addresses in other countries from which users in China can access an entirely open Internet. But that would be costly--and in any case most Chinese use only Chinese sites, which are subject to self-censorship, not network-level blocking.
- The second tactic is to apply pressure through Western companies that are deeply involved in the Chinese Internet--companies that provide the routers, the filtering software (variations on the technology that filters pornography and other content in other countries), and the PCs that Chinese consumers buy. The **Global Network Initiative (GNI)**, a consortium of corporations, academics, and human rights groups that formed in 2008, is working on a voluntary code of corporate conduct to support free speech and human rights, but to date only Microsoft, Google, and Yahoo have signed on (**the latter company after it gave Chinese authorities data on activists named Li Zhi and Shi Tao, resulting in their imprisonment**). "It's better to join the GNI before you get stuck with a Yahoo case ... rather than wait until they are yelling at you in Congress and calling you moral pygmies," says MacKinnon, a cofounder of the GNI. But as MacKinnon pointed out in a recent blog post, these ideas go only so far; the only Chinese anticensorship techniques that will work on a large scale will be ones generated by the Chinese themselves. Zuckerman adds that well-meaning Westerners would do well to at least become familiar with Chinese online norms and customs. "Until we understand what Chinese users like and want and use, it's hard for us to understand how we would design alternatives to censorship that are likely to succeed," he points out.

That's where activists such as Xiaomi fit in. "Some people will wonder who is doing this, and why," she said, speaking to me through her secure Skype connection. Her motivations, she explained, are the same as those that drew her, as an undergraduate in 1989, to the democracy protests in Tiananmen Square. She recalls a Woodstock-like experience, with people singing and falling in love as they camped out. She left on May 28, 1989--one week before the crushing response by Chinese tanks and soldiers--and went on to earn an MBA at a U.S. school and prosper as a software consultant. "In my generation, most of us have done well. We caught the opportunity of China's booming economy," she said. "But there are dreams that are not fulfilled yet. We had them for more than 20 years, and things are still getting even worse and not better."

Huang, of MIT, argues that the protestors of Tiananmen might never have imagined seeing the criticisms of policies and officials that are online today. "We should measure progress in China not by protests on the streets and availability of news on protests, but by the involvement of the Chinese citizens in policy discussions," Huang says. "By the latter yardstick, China has made huge progress, thanks largely to the Internet. The Internet is already changing China, and it will change the country for the better in the future." China's Internet, like its society and economy as a whole, might move fitfully and incrementally toward greater freedom. Because as activists like Xiaomi grow more creative--and the Great Firewall grows more sophisticated--the Chinese Internet is simply ... growing. And even Xiaomi, who experiences the Great Firewall firsthand and is less optimistic than Huang, believes that the wall "eventually will fail."

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