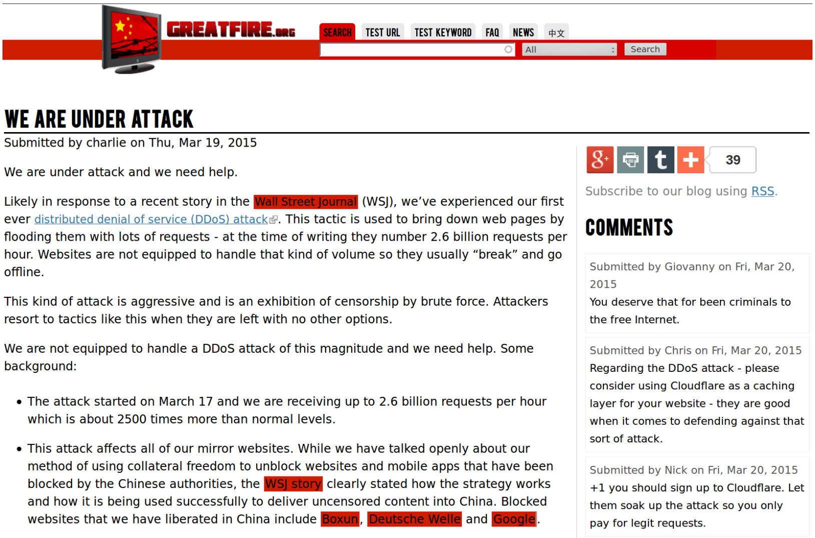
Greatfire.org

Sumandro Chattapadhyay[1]



WE ARE UNDER ATTACK

Submitted by charlie on Thu, Mar 19, 2015

We are under attack and we need help.

Likely in response to a recent story in the Wall Street Journal (WSJ), we've experienced our first ever distributed denial of service (DDoS) attack. This tactic is used to bring down web pages by flooding them with lots of requests - at the time of writing they number 2.6 billion requests per hour. Websites are not equipped to handle that kind of volume so they usually "break" and go offline.

This kind of attack is aggressive and is an exhibition of censorship by brute force. Attackers resort to tactics like this when they are left with no other options.

We are not equipped to handle a DDoS attack of this magnitude and we need help. Some background:

- The attack started on March 17 and we are receiving up to 2.6 billion requests per hour which is about 2500 times more than normal levels.
- This attack affects all of our mirror websites. While we have talked openly about our method of using collateral freedom to unblock websites and mobile apps that have been blocked by the Chinese authorities, the WSJ story clearly stated how the strategy works and how it is being used successfully to deliver uncensored content into China. Blocked websites that we have liberated in China include Boxun, Deutsche Welle and Google.

Subscribe to our blog using RSS.

COMMENTS

Submitted by Giovanny on Fri, Mar 20, 2015
You deserve that for been criminals to the free Internet.

Submitted by Chris on Fri, Mar 20, 2015
Regarding the DDoS attack - please consider using Cloudflare as a caching layer for your website - they are good when it comes to defending against that sort of attack.

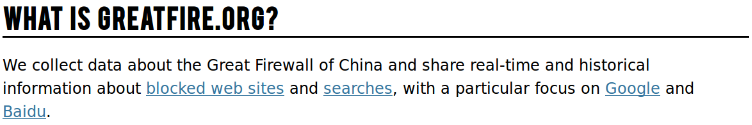
Submitted by Nick on Fri, Mar 20, 2015
+1 you should sign up to Cloudflare. Let them soak up the attack so you only pay for legit requests.

[Image 1] https://en.greatfire.org/blog/2015/mar/we-are-under-attack

Greatfire was 'under attack' in March 2015. Now how do you attack a website? As they explain above, you attack it by sending a large number of visitors to the website. It is like occupying a park or a building. With that many users visiting the website, it stops working. Of course, these visitors are non-human visitors: they are automated scripts/bots asking the website for information.

[1] Text written and screenshots from Greatfire.org compiled by Sumandro Chattapadhyay.

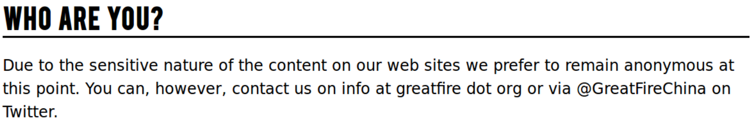
But what information does the Greatfire website possess for which it got attacked?



WHAT IS GREATFIRE.ORG?

We collect data about the Great Firewall of China and share real-time and historical information about blocked web sites and searches, with a particular focus on Google and Baidu.

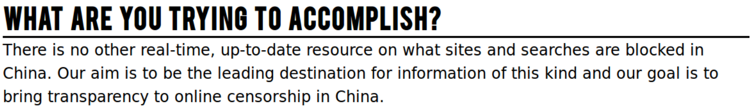
[Image 2] https://en.greatfire.org/faq/what-greatfireorg



WHO ARE YOU?

Due to the sensitive nature of the content on our web sites we prefer to remain anonymous at this point. You can, however, contact us on info at greatfire dot org or via @GreatFireChina on Twitter.

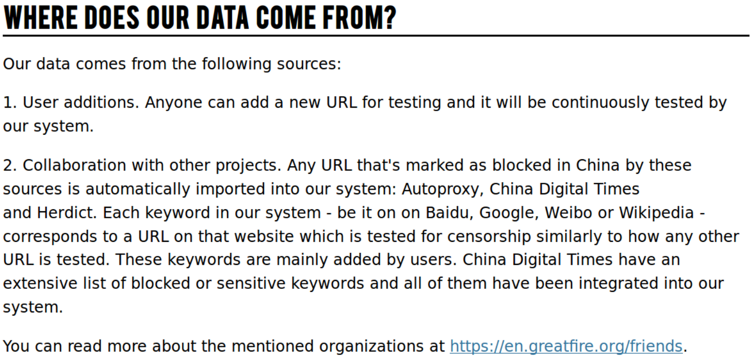
[Image 3] https://en.greatfire.org/faq/where-does-our-data-come



WHAT ARE YOU TRYING TO ACCOMPLISH?

There is no other real-time, up-to-date resource on what sites and searches are blocked in China. Our aim is to be the leading destination for information of this kind and our goal is to bring transparency to online censorship in China.

[Image 4] https://en.greatfire.org/faq/what-are-you-trying-accomplish



WHERE DOES OUR DATA COME FROM?

Our data comes from the following sources:

1. User additions. Anyone can add a new URL for testing and it will be continuously tested by our system.

2. Collaboration with other projects. Any URL that's marked as blocked in China by these sources is automatically imported into our system: Autoproxy, China Digital Times and Herdict. Each keyword in our system - be it on on Baidu, Google, Weibo or Wikipedia - corresponds to a URL on that website which is tested for censorship similarly to how any other URL is tested. These keywords are mainly added by users. China Digital Times have an extensive list of blocked or sensitive keywords and all of them have been integrated into our system.

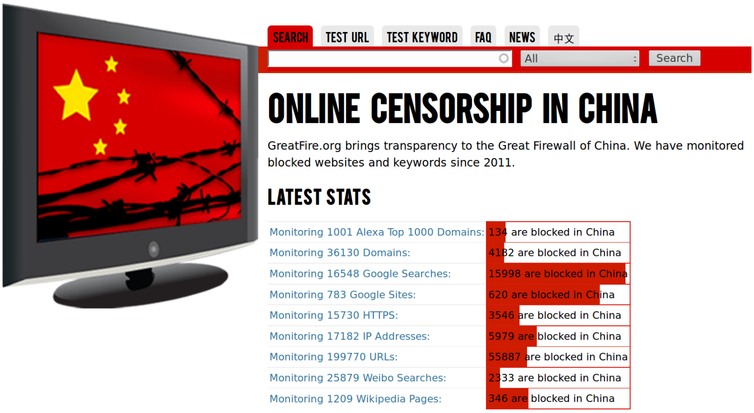
You can read more about the mentioned organizations at https://en.greatfire.org/friends.

[Image 5] https://en.greatfire.org/faq/where-does-our-data-come

So how can the blocked sites and webpages in China be explored through Greatfire?

Go to the homepage first.

The Latest Stats section shows the various counts of online censorship in China maintained by the website. It monitors the global top 1000 most-visited domains according to Alexa to check if those are blocked in China or not. Similarly it monitors specific domains, sites and search result pages within Google domains, HTTPS addresses (as separate from HTTP addresses), direct IP addresses of webpages, URLs of webpages (even if the domain itself is not blocked, specific pages within it might be), search result pages on Weibo (the major Chinese social microblogging platform), and pages across Wikipedia domains.



ONLINE CENSORSHIP IN CHINA

GreatFire.org brings transparency to the Great Firewall of China. We have monitored blocked websites and keywords since 2011.

LATEST STATS

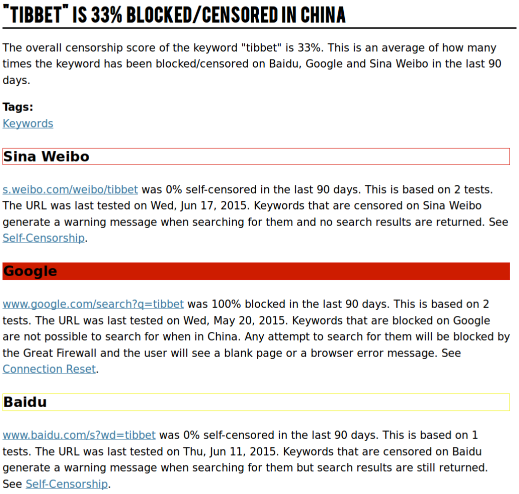
Monitoring 1001 Alexa Top 1000 Domains:	134 are blocked in China
Monitoring 36130 Domains:	4182 are blocked in China
Monitoring 16548 Google Searches:	15998 are blocked in China
Monitoring 783 Google Sites:	620 are blocked in China
Monitoring 15730 HTTPS:	3546 are blocked in China
Monitoring 17182 IP Addresses:	5979 are blocked in China
Monitoring 199770 URLs:	55887 are blocked in China
Monitoring 25879 Weibo Searches:	2333 are blocked in China
Monitoring 1209 Wikipedia Pages:	346 are blocked in China

[Image 6] https://en.greatfire.org/

Greatfire maintains a list of all these domains, webpages, IPs, search result pages, etc. that it tests periodically to see if they are blocked within China or not. You can go to the Recently Added section to check what all domains and pages and IPs have they started to monitor in recent times: https://en.greatfire.org/recently-added.

The Search bar on top also allows you to directly search for specific keywords and URLs and check if they are blocked or not.

For example, we can search for 'Tibbet' in the search bar on the top, and Greatfire will show us a result page like the following one:



"TIBBET" IS 33% BLOCKED/CENSORED IN CHINA

The overall censorship score of the keyword "tibbet" is 33%. This is an average of how many times the keyword has been blocked/censored on Baidu, Google and Sina Weibo in the last 90 days.

Tags:
Keywords

Sina Weibo

s.weibo.com/weibo/tibbet was 0% self-censored in the last 90 days. This is based on 2 tests. The URL was last tested on Wed, Jun 17, 2015. Keywords that are censored on Sina Weibo generate a warning message when searching for them and no search results are returned. See Self-Censorship.

Google

www.google.com/search?q=tibbet was 100% blocked in the last 90 days. This is based on 2 tests. The URL was last tested on Wed, May 20, 2015. Keywords that are blocked on Google are not possible to search for when in China. Any attempt to search for them will be blocked by the Great Firewall and the user will see a blank page or a browser error message. See Connection Reset.

Baidu

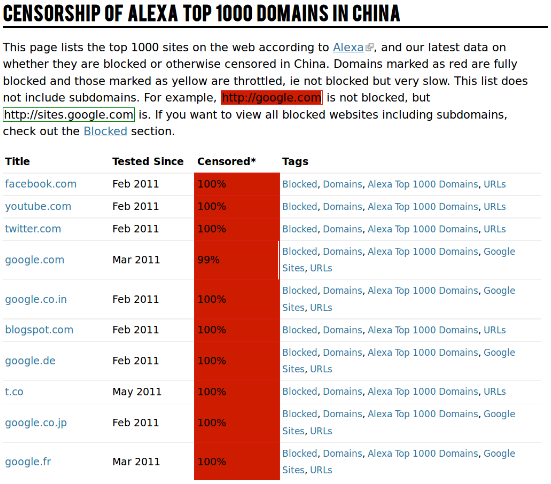
www.baidu.com/s?wd=tibbet was 0% self-censored in the last 90 days. This is based on 1 tests. The URL was last tested on Thu, Jun 11, 2015. Keywords that are censored on Baidu generate a warning message when searching for them but search results are still returned. See Self-Censorship.

[Image 7] https://en.greatfire.org/keyword/tibbet

Now how should we interpret this censorship score? The *33%* value indicates that out of the three search engines that Greatfire tracks—Baidu, Google, and Sina Weibo—the search results for the term 'Tibbet' is only blocked for one search engine, that is Google.

The thing to remember here is that Baidu and Sina Weibo being Chinese companies, content that is available via them might be already subject to other forms of censorship. The critical value of this *33%* score hence is in demonstrating how Chinese censorship targets digital content being produced elsewhere in the world and prevents it from being accessible to Chinese users of the Internet.

A look at the list of ' Censorship of Alexa Top 1000 Domains in China' reveals how global digital content is comprehensively stopped from being accessed by Chinese Internet users.



CENSORSHIP OF ALEXA TOP 1000 DOMAINS IN CHINA

This page lists the top 1000 sites on the web according to Alexa, and our latest data on whether they are blocked or otherwise censored in China. Domains marked as red are fully blocked and those marked as yellow are throttled, ie not blocked but very slow. This list does not include subdomains. For example, http://google.com is not blocked, but http://sites.google.com is. If you want to view all blocked websites including subdomains, check out the Blocked section.

Title	Tested Since	Censored*	Tags
facebook.com	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, URLs
youtube.com	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, URLs
twitter.com	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, URLs
google.com	Mar 2011	99%	Blocked, Domains, Alexa Top 1000 Domains, Google Sites, URLs
google.co.in	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, Google Sites, URLs
blogspot.com	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, URLs
google.de	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, Google Sites, URLs
t.co	May 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, URLs
google.co.jp	Feb 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, Google Sites, URLs
google.fr	Mar 2011	100%	Blocked, Domains, Alexa Top 1000 Domains, Google Sites, URLs

[Image 8] https://en.greatfire.org/search/alexa-top-1000-domains.

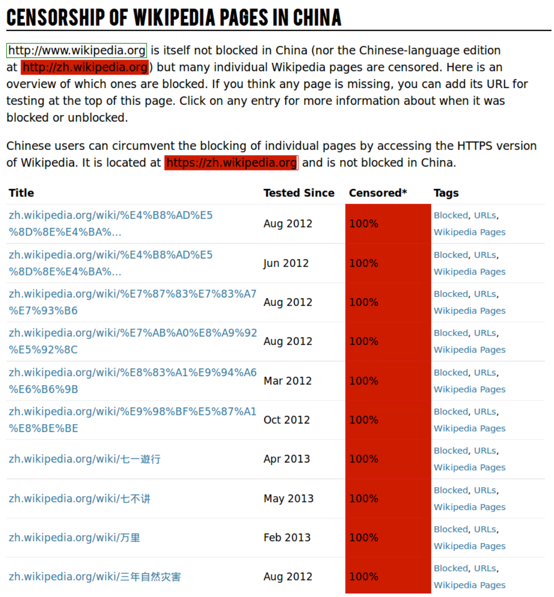
This focus on the blocking of digital content produced elsewhere from being consumed by Chinese citizens does not give us a full picture of the everyday reality of media censorship in China. Lokman Tsui highlights this point as he questions the effectiveness of the prevalent 'Great Firewall' metaphor, which even the Greatfire website employs.

Tsui writes:

> The metaphor most frequently used in describing and understanding Internet censorship in China is that of the Great Firewall… I argue that our (ab)use of the Great Firewall metaphor leads to blind spots that obscure and limit our understanding of Internet censorship in the People's Republic… To illuminate the existence of these blind spots, I use the term

> Great Firewall myth (as opposed to metaphor). By using the word “myth”, however, I am not denying the existence of Internet censorship in China. On the contrary. The Great Firewall myth is the belief that China’s efforts to censor the Internet must ultimately fail, and that the Internet will eventually lead to the country’s democratisation…
>
> [The myth] gives the impression that censorship is practised only on information that lies outside the Great Firewall: after all, that is the purpose of the protection the wall provides. Attempts to “break down” the Great Firewall focus on countering censorship technology with more and better technology, resulting in a cat-and-mouse game between activists and censors… The image of the Great Firewall protecting China from the West thus obscures the fact that “undesirable” information often comes not from the West but from within China itself…
>
> … [Further,] the Great Firewall metaphor hints at the difficulty only of receiving information, not sending it. Censorship prevents the barbarians from coming in, but does it also prevent the Chinese from going out? The concept of free speech has two aspects: the right to receive information, but also the right to impart it. (Tsui 2007)

Greatfire, however, effectively creates entry points to understand various kinds of censorship activities of the Chinese government. The pattern of blocking of Wikipedia pages in China, for example, offers interesting insights.



CENSORSHIP OF WIKIPEDIA PAGES IN CHINA

http://www.wikipedia.org is itself not blocked in China (nor the Chinese-language edition at http://zh.wikipedia.org) but many individual Wikipedia pages are censored. Here is an overview of which ones are blocked. If you think any page is missing, you can add its URL for testing at the top of this page. Click on any entry for more information about when it was blocked or unblocked.

Chinese users can circumvent the blocking of individual pages by accessing the HTTPS version of Wikipedia. It is located at https://zh.wikipedia.org and is not blocked in China.

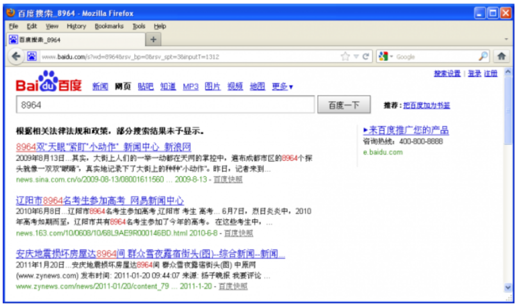
Title	Tested Since	Censored*	Tags
zh.wikipedia.org/wiki/%E4%B8%AD%E5%8D%8E%E4%BA%…	Aug 2012	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/%E4%B8%AD%E5%8D%8E%E4%BA%…	Jun 2012	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/%E7%87%83%E7%83%A7%E7%93%B6	Aug 2012	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/%E7%AB%A0%E8%A9%92%E5%92%8C	Aug 2012	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/%E8%83%A1%E9%94%A6%E6%B6%9B	Mar 2012	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/%E9%98%BF%E5%87%A1%E8%BE%BE	Oct 2012	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/七一遊行	Apr 2013	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/七不讲	May 2013	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/万里	Feb 2013	100%	Blocked, URLs, Wikipedia Pages
zh.wikipedia.org/wiki/三年自然灾害	Aug 2012	100%	Blocked, URLs, Wikipedia Pages

[Image 9] https://en.greatfire.org/search/wikipedia-pages.

When interpreting the censorship of Wikipedia pages, there are two things that must be given attention. Firstly, the focus of the censorship is clearly on pages in the Chinese language Wikipedia project, and not the English language Wikipedia project. And secondly, Wikipedia is as much a site of information consumption, as it is of information production. Blocking Chinese Internet users from accessing specific pages on the Chinese language Wikipedia project is hence not only about preventing them from accessing Chinese language content created elsewhere in the world, but also about preventing them from creating and sharing Chinese language content within and outside China.

Production and digital distribution of content by Chinese users is also censored by the Government of China through the ‘Self-Censorship’ mechanism.

WHAT DOES SELF-CENSORSHIP MEAN?


百度搜索_8964 - Mozilla Firefox
File Edit View History Bookmarks Tools Help
百度搜索_8964
www.baidu.com/s?wd=8964&rsv_bp=0&rsv_spt=3&inputT=1312
Google
搜索设置 | 登录 注册
Bai du 百度
新闻 网页 贴吧 知道 MP3 图片 视频 地图 更多▾
8964
百度一下
推荐：把百度加为书签

根据相关法律法规和政策，部分搜索结果未予显示。

8964双"天眼"紧盯"小动作" 新闻中心_新浪网
2009年8月13日...其实，大街上人们的一举一动都在天网的掌控中，遍布成都市区的8964个探头就像一双双"眼睛"，真实地记录下了大街上的种种"小动作"。昨日，记者来到...
news.sina.com.cn/o/2009-08-13/08001611560 ... 2009-8-13 - 百度快照

辽阳市8964名考生参加高考_网易新闻中心
2010年6月8日...辽阳市8964名考生参加高考,辽阳市 考生 高考... 6月7日，烈日炎炎中，2010年高考如期而至，辽阳市共有8964名考生参加了今年的高考。 在这些考生中， ...
news.163.com/10/0608/10/68L9AE9R000146BD.html 2010-6-8 - 百度快照

安庆地震损坏房屋达8964间 群众雪夜露宿街头(图)--综合新闻--新闻...
2011年1月20日...安庆地震损坏房屋达8964间 群众雪夜露宿街头(图) 中原网(www.zynews.com) 发布时间: 2011-01-20 09:44:07 来源: 扬子晚报 我要评论 ...
www.zynews.com/news/2011-01/20/content_79 ... 2011-1-20 - 百度快照

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e.baidu.com

All websites hosted in China are required to exercise self-censorship. This takes many forms and is more complex to track than censorship of foreign websites. Some websites admit to self-censorship by displaying a certain message when searching for certain keywords. One example is Baidu, as shown above, which presents the following message for particularly sensitive searches:

根据相关法律法规和政策，部分搜索结果未予显示。

This roughly translates to:

In accordance with relevant laws, regulations and policies, some search results were not displayed.

However, this does not mean that searches without this message are not censored. A more realistic interpretation is probably that the search is particularly sensitive and perhaps subject to a higher level of censorship than other searches.

Our system concludes that a website is subject to Self-Censorship if:

1. The URL is a Baidu search result page, and
2. The result page contains the following text: 根据相关法律法规和政策，部分搜索结果未予显示。

[Image 10] https://en.greatfire.org/faq/self-censorship.

Let us take a step back now and remember that various forms of censorship are not that uncommon even for the *global open Internet*.

Google serves maps with different political boundaries for different countries.

Facebook conducts psychological experiments based upon its ability to algorithmically manipulate what status updates a user sees on her/his Facebook wall.

The Tempora programme of Government Communications Headquarters (GCHQ) of the Government of the United Kingdom, taps into the submarine cables carrying the global Internet data traffic, and undertakes mass interception of data passing through Bude, a small coastal town. GCHQ also runs EdgeHill, a massive-scale decryption exercise of digital communication flowing through HTTPS protocol (targeting digital certificates provided by three main authorities).

The rush for surveillance, monitoring, and censorship of global Internet transactions is a rather global phenomenon - neither being done only by government agencies, nor taking place only in Asian countries.

A key question, hence, is if the Chinese government is one of the first movers in the space of Internet censorship. Did it initiate the competition, and thus shape a global situation of acts and counter-acts of surveillance and censorship?

Evgeny Morozov disagrees.

> …[T]he US government insists that it should have access to data regardless of where it is stored as long as it is handled by US companies. Just imagine the outcry if the Chinese government were to demand access to any data that passes through devices manufactured by Chinese companies – Xiaomi, say, or Lenovo – regardless of whether their users are in London or New York or Tokyo. Note the crucial difference: Russia and China want to be able to access data generated by their citizens on their own soil, whereas the US wants to access data generated by anybody anywhere as long as American companies handle it...
>
> ...Whatever motivates the desire of Russia and China to exert more control over their digital properties – and only the naive would believe that they are not motivated by concerns over domestic unrest – their actions are proportional to the aggressive efforts of Washington to exploit the fact that so much of the world's communications infrastructure is run by Silicon Valley. One's man internet freedom is another man's internet imperialism (Morozov 2015).

References and Further Readings

2015. "Denial of Service Attack." Wikipedia. June 11. Accessed June 15, 2015. https://en.wikipedia.org/wiki/Denial-of-service_attack.

2015. "Great Firewall." Wikipedia. May 20. Accessed June 15, 2015. https://en.wikipedia.org/wiki/Great_Firewall.

2015. "Internet Censorship in China." Wikipedia. June 13. Accessed June 15, 2015. https://en.wikipedia.org/wiki/Internet_censorship_in_China.

2015. "Internet Censorship in the United States." Wikipedia. April 12. Accessed June 15, 2015. https://en.wikipedia.org/wiki/Internet_censorship_in_the_United_States.

2015. “Sina Weibo.” Wikipedia. June 14. Accessed June 15, 2015. https://en.wikipedia.org/wiki/Sina_Weibo.

Cox, Joseph. 2014. “The History of DDoS Attacks as a Tool of Protest.” Motherboard. October 1. Accessed June 15, 2015. http://motherboard.vice.com/read/history-of-the-ddos-attack.

Dempsey Morais, Caitlin. 2012. “The Politics of Google’s Mapping.” GIS Lounge. May 18. Accessed June 15, 2015. http://www.gislounge.com/the-politics-of-googles-mapping/.

Morozov, Evgeny. 2009. “The Internet: A Room of Our Own?” *Dissent*. Summer. Pp. 80-85. Accessed June 15, 2015. http://www.evgenymorozov.com/files/09Summer-MorozovInternet.pdf.

Morozov, Evgeny. 2015. “Who’s the True Enemy of Internet Freedom—China, Russia, or the US?” The Guardian. January 04. Accessed June 15, 2015. http://www.theguardian.com/commentisfree/2015/jan/04/internet-freedom-china-russia-us-google-microsoft-digital-sovereignty.

Reporters without Borders. 2014. “United Kingdom: World Champion of Surveillance.” In *Enemies of the Internet 2014: Entities at the Heart of Censorship and Surveillance*. March 10. Accessed June 15, 2015. http://12mars.rsf.org/2014-en/2014/03/10/united-kingdom-world-champion-of-surveillance/

Tsui, Lokman. 2007. “An Inadequate Metaphor: The Great Firewall and Chinese Internet Censorship.” *Global Dialogue*. Volume 9, Number 1–2. Winter/Spring. Accessed June 15, 2015. http://www.worlddialogue.org/content.php?id=400.

Tufekci, Zeynep. 2014. “Facebook and Engineering the Public.” Medium. June 29. Accessed June 15, 2015. https://medium.com/message/engineering-the-public-289c91390225.