

Commercial Espionage and Barriers to Digital Trade in
China

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On behalf of the Computer & Communications Industry Association (CCIA), I thank you for the opportunity to discuss digital barriers to trade in China today. CCIA is a trade association of Internet and technology firms that has promoted openness, competition, and free trade for over 40 years. We appreciate the Commission's attention to this matter, which is crucial to U.S. economic and political interests.

Barriers to digital trade in China have been and continue to be a significant challenge for U.S. business. Worldwide, the U.S. business community is on the front lines in the battle against censoring, filtering, and blocking of Internet content, and for years it confronted these problems with only limited support from the U.S. Government. This is very much the case with respect to China as well. Because the business community has a limited capacity to respond to other nations' interference with the cross-border flow of services, products, and information, it is up to governments to lead in the defense of Internet freedom and free trade principles.

I. Benefits of digital trade to the U.S. economy

Traditionally, online freedoms have rightly been viewed through the lens of human rights, and CCIA supports the efforts by many stakeholders, including intergovernmental and non-governmental organizations, to encourage nations to meet human rights norms in this area. As explained here, however, restrictions on the free flow of information online have serious *economic* consequences in addition to the injury they do to human rights.

The Internet's contribution to the U.S. economy is vast. It now exceeds the contribution of agriculture, arts, entertainment and recreation, and construction, among other traditional industries. It has also surpassed the contribution of the U.S. Federal Government, and by 2016 is estimated to reach \$4.2 trillion across all G-20 economies.¹ The Internet is also one of the great success stories for U.S. exports. U.S. exports of digitally enabled services grew from \$282.1 billion in 2007 to \$356.1 billion in 2011, with exports exceeding imports every year during that period.²

Digitally facilitated trade is not merely an issue for large technology firms; the inhibition of cross-border flow of information services is important to large and small companies alike. The World Economic Forum concluded that the Internet "can be a powerful tool to unlock SME ('small and medium-sized enterprises') export potential, and that removing barriers to Internet-enabled international trade could increase cross-border opportunities for small businesses by 60% to 80%."³ Research shows that technology-enabled SMEs demonstrate higher survival rates,⁴ and SMEs who heavily utilized the Internet export twice as much as those that did not, and further, Internet usage increased SME productivity by 10%.⁵

¹ David Dean *et al.*, Boston Consulting Group, *The Connected World: The \$4.2 Trillion Opportunity - The Internet Economy in the G-20* (2012), at 3, 49, <https://www.bcg.com/documents/file100409.pdf>.

² U.S. International Trade Commission, *Digital Trade in the U.S. and Global Economies, Part 1* (2013), http://www.usitc.gov/press_room/news_release/2013/er0815111.htm.

³ World Economic Forum, *Enabling Trade, Valuing Growth Opportunities* (2013), at 19-20, <http://www.weforum.org/reports/enabling-trade-valuing-growth-opportunities>.

⁴ eBay, *Commerce 3.0 for Development: The promise of the Global Empowerment Network* (2013), <http://www.ebaymainstreet.com/news-events/commerce-30-development-promise-global-empowerment-network>.

⁵ McKinsey Global Institute, *Internet Matters: The Net's sweeping impact on growth, jobs and prosperity*, May 2011.

The Internet has fundamentally transformed the entire business value chain in virtually all sectors and for all types of companies.⁶ According to the OECD, the Internet is a “general purpose technology enabler,” which is defined as a once-in-a-generation technology that reorganizes world economic activity and spurs productivity. In fact, the OECD expects the positive effects of the Internet to surpass those of prior general purpose technology enablers, such as the printing press, the steam engine and the electrical grid.⁷

In light of the extraordinary potential that Internet-enabled trade has for the U.S. economy, maintaining a level playing field should be a U.S. priority. Unfortunately, it is often the case that businesses in China and other nations that engage in filtering, blocking, and censorship of U.S. digital trade have full access to the U.S. market. In discussing the protectionist impulses and unequal treatment of U.S. and Chinese firms in the Chinese market several years ago, a *Foreign Policy* article observed:

Even a seemingly harmless site, like photo-sharing website Flickr, has been blocked in China, while its identical clone Bababian has grown steadily with foreign technology and no foreign competition. Likewise, blog-hosting sites Blogger and WordPress have long been blocked in China. Instead, Chinese netizens use Tianya, the 13th-most popular site in China. Far from being a sanitized land of boring blogs about daily activities, Tianya also hosts China’s largest Internet forum, a vitriolic, sensationalized, and hate-filled arena that makes Western gossip sites seem like the Economist. In the face of an obvious and systematic form of protectionism in perhaps the most important industry for the future, the cheering from many leading American figures for Google’s “brave” decision [to exit the Chinese market] seems strange. If China were attempting to block the import of American tires, instead of American Internet media, would Americans applaud Goodyear and Congress for not putting up a fight against blatant WTO violations?⁸

Unfortunately, little has changed in the intervening period. It should be a serious concern for U.S. policymakers that American technology companies do not enjoy the same unfettered access, especially as the Chinese market continues to expand. It is estimated that as of 2014, China has 632 million Internet users — the world’s largest Internet market.⁹ Ambassador Froman remarked recently that the Asian-Pacific middle class is growing drastically. As of 2009, there were 525 million middle class consumers in Asia. That number is estimated to grow to 3.2 billion by 2030.¹⁰ It is not only the growing consumer base that makes the Chinese market a relevant area for growth, but also the dramatic rise of Internet connections. E-commerce for consumer electronics posted a compound annual growth rate of 103 percent from 2009 to 2012. The McKinsey Global Institute developed an “iGDP” indicator to measure the size of a country’s Internet economy and noted that in 2010, China’s Internet economy stood at 3.3 percent of its

⁶ McKinsey Global Institute, *The Great Transformer: The Impact of the Internet on Economic Growth and Prosperity*, Oct. 2011, http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_great_transformer.

⁷ OECD, *Broadband and the Economy, Ministerial Background Report*, May 2007, <http://www.oecd.org/sti/40781696.pdf>.

⁸ Jordan Calinoff, *Beijing’s Foreign Internet Purge*, *Foreign Policy*, Jan. 15, 2010, <http://foreignpolicy.com/2010/01/15/beijings-foreign-internet-purge/>.

⁹ McKinsey Global Institute, *China’s Digital Transformation: The Internet’s Impact on Productivity and Growth*, July 2014.

¹⁰ Remarks by Ambassador Michael Froman at the U.S. Conference of Mayors (Jan. 2015), <https://ustr.gov/about-us/policy-offices/press-office/speechestranscripts/2015/january/remarks-ambassador-froman-us>.

GDP, and by 2013, its iGDP had reached 4.4 percent, moving China into the ranks of the global leaders.¹¹ In reference to this metric, China's Internet economy is already larger than those of the United States, France, and Germany as a share of GDP.¹²

Chinese companies are capitalizing on their thriving market and becoming increasingly competitive on a global scale. As of May 2015, four Chinese companies were included in the top 15 global public Internet companies (ranked by market capitalization), whereas none were in 1995.¹³ While Chinese companies enjoy growth bolstered by unrestricted market access at home and abroad, U.S. companies face a more saturated home market, with lower growth rates. In the late 90s and early 2000s U.S. companies faced a scalable, expanding market that was early in the adoption cycle, making it easier to overlook foreign competitors. Today those same competitors cannot be ignored. Not only is the U.S. facing a mere 2 percent expansion rate of Internet growth, but 79% of the users of the top 10 Internet platforms come from outside the United States.¹⁴ This number is expected to grow in the future. Furthermore, major Chinese Internet companies have announced global expansion plans, many targeting the U.S. market.¹⁵

As an association that has committed several decades to the defense of competition, open markets and free trade, CCAIA welcomes the emergence and growth of Chinese Internet companies. The internationalization of Internet innovation is a boon to global consumers and drives further innovation. However, with global aspirations comes a responsibility to abide by international norms, especially for WTO members who enjoy the benefits of open markets and free trade.

II. How filtering, blocking, and censorship affects U.S. commerce

While methods for filtering, blocking, or censoring U.S. services vary, they typically consist of (a) the imposition of legal or regulatory obligations upon intermediaries, which may include blocking access to an entire Internet service or specific keywords, web pages, and domains, requiring Internet search engines to disappear search results; (b) similar blocking and/or filtering as may be required of an online service, but executed pursuant to unpublished and unappealable orders at the network level through state control or influence over the communications infrastructure; or (c) technology mandates that either hobble user privacy and security, or that force product manufacturers to include intrusive monitoring technology or back-doors.

¹¹ *Id.* at 2. "The iGDP indicator uses the expenditure method of calculating GDP. It totals all activities linked to the creation and use of Internet networks and services: consumption by individuals (including hardware, software, Internet access, and e-commerce), public expenditure (including infrastructure), business investment in Internet technologies, and the country's trade balance in Internet-related goods and services."

¹² *Id.* at 3.

¹³ Mary Meeker, *2015 Internet Trends* (May 2015), <http://www.kpcb.com/internet-trends>.

¹⁴ Mary Meeker, *2014 Internet Trends* (May 2014), http://kpcbweb2.s3.amazonaws.com/files/85/Internet_Trends_2014_vFINAL_-_05_28_14-_PDF.pdf?1401286773#page=130.

¹⁵ Jessica Guynn, *Is Alibaba coming to America?*, USA Today, Sept. 17, 2014, <http://www.usatoday.com/story/tech/2014/09/16/alibaba-ipo-expansion-united-states-europe/15736493/>; Josh Ong, *China's Tencent lays groundwork to expand its popular WeChat messaging app to US*, Next Web, Feb. 26, 2013, <http://thenextweb.com/asia/2013/02/26/chinas-tencent-creates-wechat-task-force-to-research-us-expansion/>.

China has implemented these various techniques not only against foreign websites, known aptly as the “Great Firewall of China,” but to a lesser extent domestically as well. Some have explained the elaborate Chinese censorship system as being geared towards maximizing the economic benefits of the Internet while maintaining strict social control. Whatever the domestic aim of these mechanisms may be, they function, intentionally or not, as unlawful barriers to international trade.

For many years, U.S. sites, platforms and services have been intermittently or persistently blocked at the network level, often over relatively trivial content or for “dubious” reasons.¹⁶ Chinese authorities have been known to redirect traffic from U.S.-based search engines to Baidu, their China-based competitor,¹⁷ and Baidu’s share of the Chinese search market has increased.

More recently, this discriminatory treatment escalated even further, with analytics traffic in China being redirected *from* Baidu at the network level toward U.S. sites as a form of malicious distributed denial of service (“DDoS”). Victims included GitHub, a platform popular among programmers, and the censorship-tracking site GreatFire, both of which provided tools that allow Chinese citizens to circumvent network-level censorship.¹⁸ This event followed soon after Chinese authorities announced a new initiative to “guide Internet-based companies to increase their presence in the international market.”¹⁹

As the U.S. International Trade Commission’s 2013 report noted, China was found to be a pervasive censor of Internet content in reports by at least three separate NGOs: the Open Network Initiative, Freedom House, and Reporters Without Borders. (The ITC report also identified 12 other countries that at least 2 of those 3 organizations characterized as Internet censors.)²⁰ Reflecting the impact of this ongoing discriminatory treatment, U.S. services have “been systematically forced out of the [Chinese] market” over time.²¹

While many U.S. Internet companies are effectively blocked from the Chinese market, their Chinese Internet competitors not only have access to U.S. markets, but rely on them to engage leading providers of financial, legal, and technical services, as well as U.S. hardware. Chinese

¹⁶ See, e.g., Claudine Beaumont, *Foursquare Blocked in China*, The Telegraph, June 4, 2010, <http://www.telegraph.co.uk/technology/socialmedia/7802992/Foursquare-blocked-in-China.html>. See Calinoff, *supra* note 8.

¹⁷ John Biggs, *Cyberwar: China Declares War On Western Search Sites*, TechCrunch, Oct. 18, 2007, <http://techcrunch.com/2007/10/18/cyberwar-china-declares-war-on-western-search-sites/>.

¹⁸ Russell Brandom, *China’s ‘Great Cannon’ Can Intercept and Redirect Web Traffic*, The Verge, Apr. 10, 2015, <http://www.theverge.com/2015/4/10/8381827/china-great-cannon-firewall-web-censorship>; Nicol Perloth, *China Is Said to Use Powerful New Weapon to Censor Internet*, Apr. 10, 2015, <http://www.nytimes.com/2015/04/11/technology/china-is-said-to-use-powerful-new-weapon-to-censor-internet.html>.

¹⁹ *Id.*

²⁰ United States International Trade Commission Investigation, *Digital Trade in the U.S. and Global Economies, Part I*, Investigation No. 332-531. USITC Publication 4415. July 2013. <http://www.usitc.gov/publications/332/pub4415.pdf#page=175>.

²¹ See Calinoff, *supra* note 8; Ellen Nakashima & Cecilia Kang, *In Response to New Rules, GoDaddy To Stop Registering Domain Names in China*, Washington Post, March 25, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/03/24/AR2010032401543.html>; Zach Miners, *Yahoo Exits China, Closing R&D Center*, InfoWorld, Mar. 19, 2015, <http://www.infoworld.com/article/2899056/technology-business/yahoo-exits-china-closing-randd-center.html>.

Internet firms enjoy the benefits of a walled-off home market to grow and achieve scale, after which they frequently turn to U.S. capital markets and employ U.S.-based underwriters to fund their continued growth and expansion in both their domestic markets and into international markets. In September 2014, the Hangzhou-based e-commerce and internet platform Alibaba completed the largest IPO in NYSE history, raising more than \$21 billion.²² Four major U.S. headquartered banks (Goldman Sachs, JPMorgan Chase, Morgan Stanley and Citigroup) participated in the deal as lead underwriters.²³ Alibaba — now the third most valuable Internet company in the world, ahead of Amazon and Yahoo!²⁴ — has also announced plans to expand into U.S. and European markets.²⁵

Alibaba was not unique. In 2005, Baidu, China's largest search engine (who was able to scale in its home market after Google was effectively blocked from the Chinese market) raised \$109 million dollars and utilized Goldman Sachs and Piper Jaffray as underwriters.²⁶ Weibo and Renren, often described as clones of popular American social media sites, are other examples of major Chinese Internet companies that raised money on U.S. stock exchanges and used American financial firms to underwrite the process.²⁷

It bears noting that while these strategies are practiced within China, they are also practiced by other nations as well, with the result being that U.S. services are allowed uneven and unequal access to numerous growing markets abroad. Because for many years the United States has largely acquiesced to digital trade barriers in China, other governments have been emboldened to follow this lead. As a result, Internet services — one of the fastest growing areas of U.S. exports — face one of the most hostile market landscapes abroad.

III. Mechanisms governing barriers to international trade

Domestic and international law has long sought to ensure that the cross-border trade in goods and services is liberalized and free from unnecessary or protectionist restrictions. Promoting free markets across the world remains a key U.S. economic objective, and as the United States transitions into a global information economy where U.S. businesses are positioned to be leading vendors of products and services, this objective becomes even more important.

A variety of international instruments exist to guarantee the global free trade in goods and services. The generally open nature of international trade today is a legacy of efforts that began more than 60 years ago, with the General Agreement on Tariffs and Trade (GATT), which liberalized trade in goods in the mid-20th century. More recently, this framework was subsumed

²² Michael J. de la Merced, *Alibaba Raises \$21.8 Billion in Initial Public Offering*, DealBook, Sept. 18, 2014, <http://dealbook.nytimes.com/2014/09/18/alibaba-raises-21-8-billion-in-initial-public-offering/>.

²³ Michael J. de la Merced, *The Six Banks Leading Alibaba's Giant I.P.O.*, DealBook, May 6, 2014, <http://dealbook.nytimes.com/2014/05/06/the-six-banks-who-are-leading-alibabas-giant-i-p-o/>.

²⁴ Mary Meeker, *2015 Internet Trends*, *supra* note 13.

²⁵ Guynn, *Is Alibaba coming to America?*, *supra* note 15.

²⁶ Steve Gelsi, *Baidu.com more than triples*, MarketWatch, Aug 5, 2005, <http://www.marketwatch.com/story/baidu-ipo-jumps-354-into-the-record-books>.

²⁷ Claire Baldwin & Jennifer Saba, *Renren's big day, maybe a prelude to Facebook IPO*, Reuters, May 4, 2011, <http://www.reuters.com/article/2011/05/05/us-renren-ipo-idUSTRE7433HI20110505>; Renaissance Capital, *Weibo prices downsized IPO at \$17, at the low end of the range*, Nasdaq, Apr. 16, 2014, <http://www.nasdaq.com/article/weibo-prices-downsized-ipo-at-17-at-the-low-end-of-the-range-cm345076>.

into the World Trade Organization (WTO) and was followed by services liberalization under the General Agreement on Trade in Services (GATS). GATT was aimed at removing market access impediments and non-tariff barriers, establishing baseline principles for free trade such as non-discrimination and national treatment. As a result, foreign goods (and following GATS, services) must receive treatment at least equal to that given to domestic equivalents in WTO-compliant countries.

GATS similarly requires participating nations to abide by principles of non-discrimination and national treatment with respect to services, and also enforces rules such as fair market access, and transparency and impartiality in the administration of rules. GATS also includes a Telecommunications Annex which makes clear that non-discrimination obligations include access to and use of public telecommunications networks. Violations of these obligations may be addressed through the WTO's dispute resolution mechanisms.

Similar obligations, applying market access principles to the cross-border provision of online services and e-commerce, have been discussed in the context of ongoing plurilateral trade agreement talks, including the Trans-Pacific Partnership, the Transatlantic Trade and Investment Partnership, and the Trade in Services Agreement. Domestically, U.S. law also provides mechanisms aimed at securing open markets for the export of U.S. goods and services, administered by the U.S. Trade Representative. In this vein, USTR announced a digital trade policy in May 2015 anchored in 12 principles to promote a free and open Internet. Several of the principles, such as securing basic non-discrimination commitments and enabling cross-border data flows, speak directly to the concerns at issue here.²⁸

IV. How online filtering, blocking, and censorship violate international trade obligations

As noted above, restrictions on Internet content and services may be prohibited by both GATT and GATS. The remainder of this section identified relevant aspects of those two instruments.

A. GATT

While the function of GATT was to liberalize trade in physical goods, law and legal scholarship still admits for the possibility of applying those commitments in the digital context. It is certainly the case that online services which implicate neither downloaded nor stored goods, such as search and social media, must be considered "services," analyzed with reference to GATS, not GATT. Nevertheless, disagreements remain regarding products that are downloaded, and kept in digital form, "like newspapers, songs, software, audio and electronic books. While the WTO has yet to rule on the issues, or its members to agree, the better position is that the digital versions of goods remain goods subject to GATT."²⁹ In any event, physical goods may be purchased through digital means, and thereby implicating the objectives embodied in GATT.

GATT requires a contracting party to afford goods supplied from abroad similar status to like products originating from domestic suppliers.³⁰ Yet in many cases platforms and services

²⁸ U.S. Trade Representative, *The Digital Dozen* (May 2015), https://ustr.gov/sites/default/files/USTR-The_Digital_Dozen.pdf.

²⁹ Tim Wu, *The World Trade Law of Censorship and Filtering* (May 2006), at <http://ssrn.com/abstract=882459>, at 7.

³⁰ GATT Art. III:4 (1947 text).

through which digital products can be obtained are subjected to specific censorship that provides a competitive advantage to similar products originating in China. Certain U.S. social media services, for example, have been completely blocked in China, while their Chinese equivalents Weibo and Renren are allowed to operate with selective filtering.

GATT similarly requires “[l]aws, regulations, judicial decisions and administrative rulings of general application” to be published promptly, and to be administered in a “uniform, impartial and reasonable manner.”³¹ The filtering, blocking, and censorship that U.S. services encounter, however, generally remains unpublished and unevenly applied. Moreover, little legal recourse exists to dispute the administration of such measures. As a 2011 information request from the U.S. Trade Representative to Chinese counterparts pursuant to GATS Article III suggested, U.S. businesses subject to filtering, blocking, or censoring in China often are subjected to unpublished (or arbitrary) guidelines and criteria which are neither public nor published, nor developed in a transparent fashion.³²

B. GATS

Even if GATT is construed to not reach digital trade, numerous provisions of GATS prohibit the filtering, blocking, and censorship that is applied to Internet services. GATS imposes considerable obligations on WTO Members, mandating transparency, impartiality, and non-discrimination in trade-related government actions, and requires that affected parties be afforded opportunities for judicial or independent review of trade-related administrative decisions. While exceptions to these obligations exist, such as for “public morals/order”³³ GATS derogations are only permissible when necessary to achieve the stated objective, where no reasonable, less restrictive alternative exists, and when applied without prejudice.³⁴ Where nations implement filtering, blocking, and censoring of online services, these standards are rarely met.

It is necessary to note that whereas GATT imposes blanket commitments, GATS governs sectors and “modes” where a contracting party has made specific commitments. The Chinese Government has made specific commitments pertaining to various web-based service sectors, however, as well as value-added telecommunications.³⁵

As with GATT, GATS requires reasonable publication and impartial administration of trade-related regulatory measures. When U.S. services encounter arbitrary restrictions, often at odds with what domestic competitors are subjected to, it likely constitutes a GATS violation.³⁶ The market access commitments contained in GATS Article XVI also apply in this context.

³¹ GATT Arts. X:1, X:3(a)-(b).

³² Office of the United States Trade Representative, *United States Seeks Detailed Information on China’s Internet Restrictions* (Oct. 2011), <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2011/october/united-states-seeks-detailed-information-china’s-i>.

³³ Exceptions for “public morals”/“public order” may be found in GATT Art. XX(a) and GATS Art. XIV(a).

³⁴ GATS Art. XIV. See Tim Wu, *The World Trade Law of Censorship and Filtering* (May 2006), <http://ssrn.com/abstract=882459>, at 13.

³⁵ Frederik Erixon, Brian Hindley, & Hosuk Lee-Makiyama, *Protectionism Online: Internet Censorship and International Trade Law* (2009), <http://www.ecipe.org/publications/protectionism-online-internet-censorship-and-international-trade-law/>.

³⁶ GATS Art. XVII:1.

Following the WTO *Online Gambling* dispute between the United States and Antigua, it is clear that once a contracting party has agreed to liberalize a given mode of service supply, it may not continue to maintain bans in that sector absent some rationale for doing so that comports with the GATS exceptions. The *Online Gambling* case establishes that such service bans should be considered “zero quotas,” and quantitative restrictions of this nature are prohibited in liberalized sectors by GATS Article XVI.³⁷ This outcome leads to the further conclusion that “that many WTO member states are legally obliged to permit an unrestricted supply of cross-border Internet services,” and that even states claiming public morals exemptions to justify censorship cannot persistently block general purpose online services and remain compliant with their GATS obligations.³⁸

As the recent dispute between the United States and China regarding regulation of imports and distribution of publications and audiovisual products shows, a government’s desire to control online content does not enable it to ignore WTO rules.³⁹ In the *Audiovisuals* case, China sought to justify restrictions on foreign investment for the import and distribution of books, movies, and other “culturally sensitive” materials because it wanted to protect public morals and control content. There remains little question today that the “public morals” exception allows only for narrowly tailored restrictions in certain special cases, and does not constitute a free pass.⁴⁰

V. Conclusion

To criticize foreign filtering, blocking, and censorship is not to say that U.S. policy should resist open competition from Chinese Internet firms in the free market. On the contrary: one need only look at the amazing competition-driven progress in services like search, social media, and e-commerce to appreciate how robust competition drives firms to innovate, improving consumer welfare and benefiting society. This competition cannot occur when governments intercede in the marketplace to suppress foreign competitors and benefit local incumbents. Whether such intervention is in fact motivated by “public morals” concerns or is merely protectionism clothed as such, is ultimately irrelevant if it violates international commitments. Accordingly, international remedies can and should be explored as a means for ensuring the free and open exchange of information online.

³⁷ Tim Wu, *The World Trade Law of Censorship and Filtering* (May 2006), <http://ssrn.com/abstract=882459>. See Frederik Erixon, Brian Hindley, & Hosuk Lee-Makiyama, *Protectionism Online: Internet Censorship and International Trade Law* (2009), <http://www.ecipe.org/publications/protectionism-online-internet-censorship-and-international-trade-law/>, at 9.

³⁸ Erixon *et al.*, *supra*.

³⁹ Appellate Body Report, *China – Publications and Audiovisual Products* (Dec. 21, 2009); Panel Report, *China – Publications and Audiovisual Products* (Aug. 12, 2009).

⁴⁰ *Id.*