



GLOBAL TENSIONS | SPLINTERNET

The internet can link computers all over the world using standardized communication protocols. In principle, that means that communications, data exchanges, etc. could cross borders without government control. The notion that the internet would realize its potential to link us together probably peaked around 2014 when the eminent journalist, Tom Friedman, declared that “we’re all connected.”

Since then governments have intervened to split the internet along various dimensions. This is not a surprise given that governments want to control what information is available to its citizens, what applications they use, and which industry participants can collect personal information.

1. INTRODUCTION

The origins of the internet can be traced back to the 1960s when the US Department of Defense's Advanced Research Projects Agency (DARPA) sought to create a more robust and decentralized communication network that could maintain communication even in the event of a nuclear conflict. DARPA's network of connected computers paved the way for the internet that became publicly available beginning in the 1980s.

Unlike traditional communication systems that relied on centralized infrastructure, the internet allowed for information to be transmitted across multiple paths, making it more resilient to disruptions. The decentralized nature opened up new possibilities for communication, collaboration, and information sharing on a global scale. The combination of the internet and digitizing information made it possible for individuals to search for and access a vast array of information from anywhere in the world. This accessibility transformed various aspects of society, including education, research, payment systems, commerce, and entertainment. Additionally, the internet facilitated the exchange of ideas and enabled people from different backgrounds and cultures to connect and communicate in ways that were previously unimaginable.¹

But as the use of the internet exploded, governments recognized that their national interests were at stake. In recent years, tensions between China and US have increased, in part because of new dimensions of competition such as AI, 5G infrastructure, and sourcing of minerals for computer chips and EV batteries. We are, as a result, not all connected. In Section 2, we will review examples of how the internet has split. In Section 3, we assess factors that are contributing to global tensions. In Section 4, we consider the implications for individuals, teams, and enterprises.

2. SPLINTERNET

Splinternet means the fragmentation of the internet into separate and distinct parts or networks, each with its own rules, regulations, and limitations. The concept of the splinternet suggests that the

¹ See Tom Friedman's lecture at Yale SOM: <https://www.youtube.com/watch?v=vMVPsyaV6Pc>.



global, interconnected nature of the internet is eroding as various countries and regions impose different regulations and restrictions on the flow of information and data within their borders.

One common manifestation is *blocking* by governments, where certain websites or online content may be blocked or restricted within a particular country or region. This can be done for various reasons, such as political control, cultural protection, or national security concerns. A notable example is China with its Great Firewall. (As is well known, many Western websites and apps are not available in China, including Google, Facebook, Twitter). But many Chinese websites also aren't accessible from Western countries, and their numbers is likely to increase. The State of Montana has recently banned TikTok², and recent Congressional hearings have considered a national ban.

Another manifestation of splinternet is the divergence of data protection and privacy regulations across different jurisdictions. Some jurisdictions have passed comprehensive data privacy legislation to govern processing of personal data of their citizens, imposing obligations on businesses and establishing penalties for non-compliance.³ For instance, the EU's General Data Protection Regulation (GDPR) sets strict standards for data privacy and security, which may differ from regulations in other countries. As a result, companies operating globally may need to comply with multiple sets of rules, leading to a fragmented online landscape. Some businesses may choose not to comply with such legislation and their services will not be available in certain regions and countries.⁴

Technological developments, such as the rise of regional, private, or national intranets, can also contribute to the splinternet. Some countries have implemented their own internal networks, enabling communication and sharing of information within their boundaries, while limiting access to the global internet.⁵ The motivation is to gain greater control over information flow, including control of external influences.

As global tensions have increased, China, US, and other countries have restricted investments. In August of 2023, the Biden administration announced restrictions on US investments in “entities engaged in activities involving sensitive technologies critical to national security in three sectors: semiconductors and microelectronics, quantum information technologies, and artificial intelligence.”⁶ The restrictions are not retroactive, i.e., prior investments need not be reversed. However, private equity firms will not be able to make sequential investments as is typical.

² https://en.wikipedia.org/wiki/Montana_Assembly_Bill_419. In the act, Montana's legislature declared that “the People's Republic of China is an adversary of the United States and Montana” and that it “exercises control and oversight over ByteDance [TikTok's developer]”. ByteDance sued Montana in federal court alleging violations of the First Amendment, and the law may be struck down. But the trend is clear.

³ One noble example is the US.

⁴ Notably, many US based websites have long been unavailable in Europe because of GDPR.
<https://dig.watch/updates/many-us-news-sites-unavailable-due-gdpr-restrictions-compliance>.

⁵ This is particularly visible in China where cross-border traffic – apart from the websites that are outright blocked – is slowed down, while many websites served from Mainland China are only available for users with a Mainland IP address.
<https://www.thoughtworks.com/en-sg/insights/blog/user-experience/foreign-websites-slower-China>.

⁶ <https://www.whitehouse.gov/briefing-room/statements-releases/2023/08/09/president-biden-signs-executive-order-on-addressing-united-states-investments-in-certain-national-security-technologies-and-products-in-countries-of-concern/>

3. DRIVERS OF GLOBAL TENSIONS IN 2023

The tensions discussed below are ongoing developments and, hence, our review will require updating.

Some ongoing tensions stem from “national security” concerns. That term should be understood to include interests such as (i) the control of communications infrastructure, which is a bigger issue with the advance to 5G, (ii) the competition to develop Artificial Intelligence capabilities, and (iii) how citizens spend their time.

5G a contributor to global tensions for two reasons. First, more information will be transmitted over the internet not only between people but also “things”. Second, the technological features of 5G require a huge number of distributed communications antennae, which adds to the difficulty of securing access points. In this light, it may not be surprising that the US has led efforts to restrict the use of Huawei’s equipment in the build out of 5G infrastructure. [J, NEED CITE for Huawei ban]

In the last two years, artificial intelligence (AI) has progressed from a technology with limited applications to a critically important dimension of competition between nations, especially between China and the US. Indeed, the generative powers of AI have led to a collective “freak out” over how AI can disrupt societies. To try to put China at a disadvantage, the US in October 2022 halted exports to China of equipment used to produce more technically advanced semiconductors and has leaned on allies like South Korea and the Netherlands to do the same. The US also banned most exports of AI chips manufactured by AMD and Nvidia into China, and more restrictions are likely coming.⁷ In response, China banned the use of products made by Micron, the largest US chip maker, and restricted exports of gallium and germanium, two minerals often used in manufacturing semiconductors.⁸ The US, in a retort, is reportedly seeking to restrict China’s access to cloud computing.⁹ Who knows where this “tit for tat” will end.

The extent to which global tensions will lead to more blocking of apps is not known. Chinese super apps (Alibaba and Tencent) already have global reach and may have reached a point where restrictions would be hard to implement. As indicated above, TikTok’s popularity, however, has not prevented efforts to control its use.

4. IMPLICATIONS FOR INDIVIDUALS, TEAMS, AND ENTERPRISES

Despite the frequent claims that globalization is over, smart people around the world will recognize that globalization – the story of humanity – will continue and, therefore, learn how to adapt to a world with rising global tensions. Individuals will bridge divides; teams can span divisions; and enterprises will continue to benefit from the transmission of ideas throughout the globe.

⁷ <https://www.wsj.com/articles/u-s-considers-new-curbs-on-ai-chip-exports-to-china-56b17feb>.

⁸ <https://www.wsj.com/articles/china-restricts-exports-of-two-metals-used-in-high-performance-chips-a649402b>.

⁹ <https://www.wsj.com/articles/u-s-looks-to-restrict-chinas-access-to-cloud-computing-to-protect-advanced-technology-f771613>.



That said, individual enterprises will have to adapt. The notion that the most successful high-tech companies will become global leaders may give way to the expectation that even the most innovative firms will not realize economies of scope geographically. Cross-ownership, franchising, licensing, and other organizational arrangements are available to realize some gains in contexts where individual firms cannot do so on their own.

Some companies that have had great success in China and the US may have to segregate their businesses. An important example is Sequoia, which is in the process of separating its US and China operations into separate entities.¹⁰

Readings:

1. Lemley, M. A. (2021). [The splinternet](#). Duke Law Journal, 70(6), 1397-1428.
2. Stallkamp, M. 2021. After TikTok: International Business and the Splinternet. AIB Insights, 21(2). <https://doi.org/10.46697/001c.21943>
3. The Economist, “What is the “splinternet”?” <https://www.economist.com/the-economist-explains/2016/11/22/what-is-the-splinternet>
4. Jake T. Seiler, "TikTok, CFIUS, and the Splinternet," *University of Miami International and Comparative Law Review*, 29, no. 2 (Spring 2022): 36-61.
5. TechScape: Warnings of a ‘splinternet’ were greatly exaggerated – until now, the Guardian, May 23, 2023, <https://www.theguardian.com/technology/2023/may/23/techscape-splinternet-meta-facebook-fine>
6. What Is a Splinternet? And Why You Should Be Paying Attention , <https://www.internetsociety.org/blog/2022/03/what-is-the-splinternet-and-why-you-should-be-paying-attention/>
7. The ‘splinternet’ is already here, TechCrunch, May 13, 2019; <https://techcrunch.com/2019/03/13/the-splinternet-is-already-here>

¹⁰ <https://www.wsj.com/articles/venture-capital-firm-sequoia-to-separate-china-business-as-political-tensions-rise-36e54f85>. Sequoia announced that the U. and China entities would become “distinct firms with separate brands no later than March 31 2024.” <https://www.ft.com/content/9467a0f9-7618-490e-aa80-cc5881ba3ecf>.