The Huawei 5G Infrastructure Debate

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As an undergraduate research assistant in the math department, Dr. Rodney Forcade had a wonderful quote on his board: "Skepticism and cynicism are not the same." Skeptics often look for solutions and cynics are much more black and white, focusing on what is not correct. The question is, are governments that are investigating Chinese companies such as Huawei being skeptics or cynics?

Huawei is a Chinese based telecommunications company that produces items from phones, tablets, and smart watches to surveillance cameras 4/5G infrastructure. As has been discussed in many news articles, the company is has been linked to many espionage allegations, and for a brief introduction to these allegations and the timeline, these links should help:

- CNet describes the recent timeline of US restrictions
- A NATO briefing on Huawei, 5G and China as a Security Threat

Since it can be difficult to gather country level information on which countries are accepting/banning Huawei and why, we have created a companion interactive graphic that can be found on the Salem Center's Cybersecurity Research Initiative. The graphic contains the following three characteristics:

- 1. Color-coded to describe whether each country has accepted or banned Huawei
 - Green Accepting Huawei
 - Yellow Undecided or unique circumstances
 - Red Banning Huawei
- 2. Each country gives a brief description of their Huawei policies, if applicable
- 3. If you click on each country, you will be taken to an article that describes more about that country's policies regarding Huawei

1 A Healthy Dose of Skepticism: A Case Study of Taiwan

Taiwan, or the Republic of China (ROC), is probably one of the, if not THE, most distrusting countries of the People's Republic of China (PRC), and with

a lot of historic precedent. The small island nation has had a very turbulent history with its much larger neighbor, so should we consider this distrust to be that of a cynic or a skeptic?

Let's start with some recent history. In December of 2019, when COVID-19 was not yet a household name, Taiwan was attempting to notify the WHO of an "atypical pneumonia" coming out of China. Taiwan's investigations lead to the country locking down travel from China, and has lead to only 7 deaths according to the Taiwanese CDC. Even with all of the success the ROC government has had in controlling the spread of COVID, Taiwan is a problem for the WHO due to their "strained" political ties to the PRC.

Not only has Taiwan been able to stave-off deaths due to COVID, but they have also been able to maintain their economy. According to JPMorgan's economists, Taiwan is forcasted to have 2020 GDP growth of about 1% and they have said that "Taiwan stands out for its scant evidence that a global pandemic has even occurred".

It has been said that "fear" of China has made Taiwan a success story, but the above looks far more like a skeptic that analyzed the available evidence and made the correct decisions. Taiwan is skeptical of China, and rightfully so. China was not forthcoming with information about information early on with SARS, promised to change, but withheld information again leading to outbreaks in many countries that could have been managed much better if information had been shared.

What actions is the Taiwan nation state taking in cyberspace? They were the first nation to ban Huawei and ZTE (another Chinese telecommunications company) in 2013, and are currently banning other Chinese technology companies such as Baidu's iQiyi and Tencent's WeTV. We have shown that in the realm of public health, that Taiwan tends to behave as a skeptic, but what about here? Are they being too cynical about Huawei's intentions or Chinese companies links to the People's Liberation Army (PLA)? This is what I will discuss in the next section.

2 China's Masked Diplomacy

I have stated before that the Communist government of China is not known as a beacon of free speech, religious freedom, or many other human rights in a previous blog post. In fact it has brutally cracked-down on these freedoms over and over again. Let's start with the Hong Kong/pro-democracy protests. As the riot police patrol the street and have arrested more and more people, Chief Executive Carrie Lam hailed the city's "return to stability".

Under these new security laws, Taiwan has been inundated with fleeing prodemocracy protesters from Hong Kong. Taiwan is in a tricky situation, "This is like solving a simultaneous equation," said ruling Democratic Progressive Party parliamentarian Hung Sun-han, speaking on his own account. "We need to give considerations to human rights, but we also need to handle the tense relations between China and Taiwan." China has also been known to put pressure on foreign companies to bend to their will. Many people have been understand when a corporation has adjusted their product while entering China, but how understanding should we be when the product is changed/altered for those not living under the regime. For example, on June 7th Zoom suspended the account of the US-based activists after they held a meeting discussing Tiananmen Square. In an OpEd by Yi-Zheng Lian, he sites Zoom as a potential backdoor into America for cyber espionage.

Are anti-democracy crackdowns the worst we have to fear from the Chinese government? Not at all! I am not going to give anything near a full expose on Chinese human rights violations, there are plenty of places for those. Here is couple of links to start with:

- NPR's article on China's treatment of the Uighurs
- Kazakhstan's Anti-China Protests

There are clear violations of human rights, and then there are violations of sanctions and international trade laws, Chinese companies have also been accused of breaking the later. First, Huawei has been accused of shipping prohibited U.S. gear to Iran, and this would violate American trade sanctions on Iran. Not only did they support Iran, but Huawei also built North Korea's cell phone networks, violating more sanctions.

Huawei has not only sold prohibited gear and illegally built cell towers, but they have sold state surveillance equipment around the world. For example, the Ecuadorian police have installed over 4,300 Huawei cameras. This may seem innocent, "but a New York Times investigation found that the footage also goes to the country's feared domestic intelligence agency, which under the previous president, Rafael Correa, had a lengthy track record of following, intimidating and attacking political opponents."

China has used COVID to cover its tracks to attack and expand its geopolitical gains while other countries have had to deal with internal affairs, due to the CCP's deliberate negligence in informing us about the disease. For a thorough analysis of this, I would recommend that you read through RAND's "Don't be Fooled by China's Mask Diplomacy. For a couple examples:

- China has gone on the offensive against India, causing them to start to ban Huawei.
- They have been linked to hacks in the United States that were targeted at COVID research.
- Chinese companies are using COVID infultrate new markets in Latin America with surveillance equipment, through DaHua.

Any one of these by themselves gives should make a reasonable person question what they are doing trading with this partner. However, all of these factors combined is easily enough to answer the question posed above, Taiwan is not being too cynical, but is being reasonably skeptical. Now maybe this is true for a small nation state, such as Taiwan, but what about a superpower such as the United States? Should we fear simple social media apps like WeChat and TikTok?

3 Can the Five Eyes Hold Back the Tide?

In an amazing break with decades of policy, on December 2, 2016 Presidentelect Donald Trump spoke with the Taiwanese President Tsai Ing-wen. This gave a firm base of what American foreign policy would look like for the next four years. The US has banned Huawei, and is attempting to ban other Chinese companies such as TikTok and WeChat.

Do I really care about people dancing around to silly music or people chatting or texting with their friends or family? No, of course not, but I do worry about the privacy concerns and backdoors that exist in these apps. For example, TikTok is documented to have tracked user data while using tactics that are banned by Google and RAND has released a statement describing the problems facing a potential US-TikTok deal. WeChat is far more than just a messenger app, it is a "super-app" that allows the user to do a plethora of activities and the app "might leak private information without user awareness."

This is a country being rightfully skeptical of another countries espionage campaigns. Even Pelosi has joined the campain to pressure Europe to ban Huawei. As you can see from the supplemental map, the US and Taiwan are not alone in the skepticism of these Chinese corporations, some of the Five Eyes are joining in on the ban.

The Five Eyes is an intelligence alliance of Australia, Canada, New Zealand, the United Kingdom, and the United States. The United States, UK, and Australia have all banned Huawei, however the New Zealand and Canadian government have not. Australia and New Zealand are in a unique position, in that they have a neighbor, Papua New Guinea, that has a documented case of Huawei spying on their government after the company was allowed into the country. Australia has taken a hard stance toward China, and has even lost sports sponsorships over their ongoing trade war with China. However, New Zealand has not taken a hard stance on what they will do.

This goes back to my argument from the previous Cybersecurity Post of the Month about Firewalls, the Five Eyes is a Maginot Line, that if every party is not doing their part in defending the line, we will be out flanked.

4 Conclusion

As detailed above, there is a clear divide between which countries have banned and have allowed Huawei to install infrastructure. However, as skepticism about Huawei is starting to prevail amongst a growing number of countries, many countries are transitioning toward banning Huawei and other Chinese technologies.

I hope you are a skeptic, and not a cynic, and are willing to dig deeper into

what has been said here. Go research this for yourself, and reach out to me if you have any questions or concerns. I am more than willing to engage in civil and polite dialogue about this or other policies surrounding cybersecurity.

For more information on hacking and policy trends, visit the Salem Center's Cybersecurity Research Initiative to learn about our speaker series, courses offered, and current research.