

JOINING CHINA'S DIGITAL SILK ROAD

Identifying the Countries at Highest Risk of Joining China's New Initiative

Background

Recently, China announced its Digital Silk Road as a component of its Belt and Road Initiative. The Digital Silk Road plans to span across many countries and uses Chinese investment to positively affect the countries it invests in while expanding China's economic influence. The purpose of the Digital Silk Road is to develop digital infrastructure in countries that currently lack it by using Chinese companies and technology. Some countries which have already agreed to be part of the Digital Silk Road include Saudi Arabia, Egypt, Turkey, Thailand, Laos, Serbia, and the United Arab Emirates, and more countries will likely join as China continues to promote this initiative.

Chinese involvement in the development of digital infrastructure poses risks both to the security of the nation's digital data as well as threatens the freedom of speech through potential establishment of Chinese digital censorship mechanisms. As the Digital Silk Road spreads, it will also affect the global cybersecurity environment. Therefore, it is important to anticipate which countries will be most likely to join the Digital Silk Road in order to understand the risks of the initiative and act preemptively to counter Chinese influence.

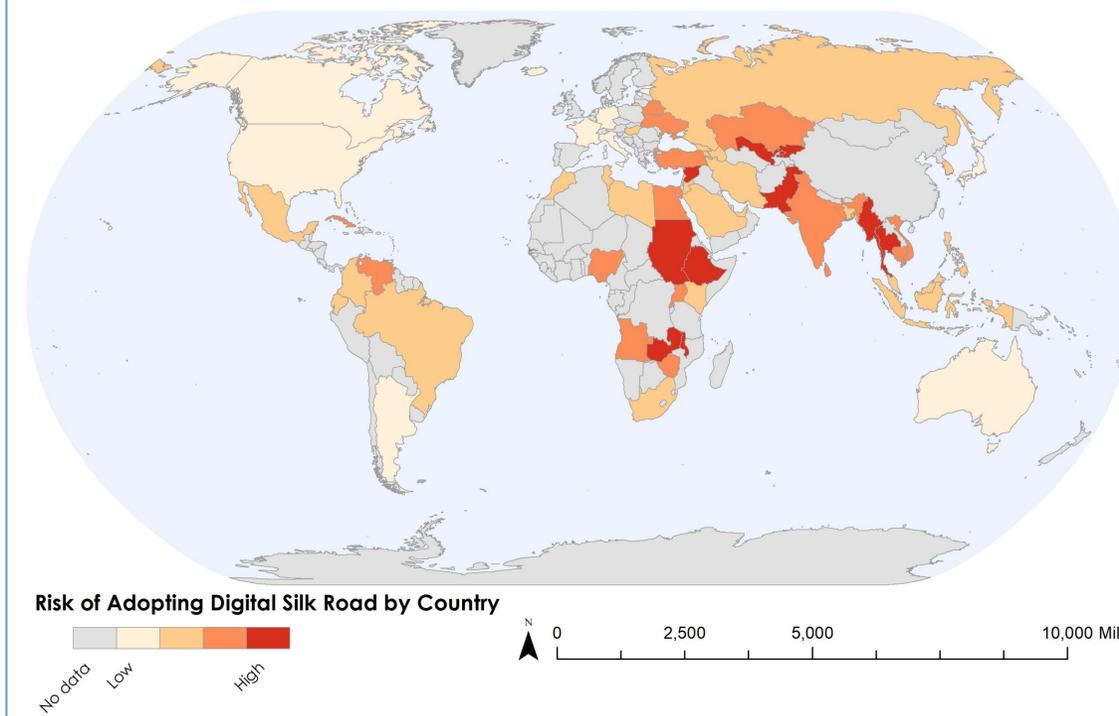
This analysis will attempt to understand the likelihood of countries accepting greater Chinese investment in digital infrastructure, surveillance and censorship technology, and the Chinese concept of "cyber sovereignty." The countries which do decide to join the Digital Silk Road are also those which will be adopting the greatest risks of Chinese interference.

In order to assess the likelihood of countries accepting investment as part of the Digital Silk Road, this map looks at internet penetration rates, internet freedom, perceptions of public sector corruption, Chinese global investment, and country GDP.

Research Questions:

- Which countries are at highest risk to adopt all of the aspects of the Digital Silk Road?
- Which countries are most likely to accept investment from the Digital Silk Road?
- Which countries are most likely to adopt Chinese surveillance and censorship technology?

Countries Most at Risk of Adopting All Aspects of the Digital Silk Road (2018)



Results and Conclusion

The final map highlights which countries are most likely to adopt all aspects of the Digital Silk Road and therefore are most likely to face security risks from Chinese access to their information, as well as align themselves with Chinese cyber sovereignty. The countries most at risk are also ranked in the table to the right. The countries that have the highest risk are concentrated throughout Southeast Asia, through the Middle East, East Africa, and Eastern Europe, as well as some areas in South America. These are the countries that China has been focusing on so the map aligns with previous expectations.

Some limitation of this analysis are that many datasets only looked at a limited number of countries so unfortunately many countries were left out of this analysis. Additionally, aspects like corruption are hard to quantify and may be subjective.

Countries that join the Digital Silk Road are not the only ones affected by their involvement — it will likely impact the security of the countries that interact with them and the more countries who adopt Chinese surveillance and censorship technology, the greater impact this will have on privacy and freedom of speech around the world. As many of the countries at highest risk have already joined the Digital Silk Road, this analysis provides a list of countries that should be watched as China seeks to increase its access to the internet worldwide.

Countries at Highest Risk of Adopting Digital Silk Road		
Risk Level	Country Name	Total Score
High	Ethiopia	17
	Myanmar	16
	Syrian Arab Republic	15
	Pakistan	15
	Malawi	15
	Sudan	14
	Uzbekistan	14
	Kyrgyzstan	14
	Thailand	14
	Zambia	14
Moderate-High	Gambia	14
	Cuba	13
	Uganda	13
	Kazakhstan	13
	Turkey	13
	Sri Lanka	13
	Zimbabwe	13
	Angola	13
	Venezuela	12
	Egypt	12
	Ukraine	12
	Cambodia	12
	Viet Nam	12
	Nigeria	11
	Belarus	11
	India	11
	Rwanda	11

Methodology

A vulnerability analysis was done for likelihood of accepting investment and likelihood of adopting technology. Internet penetration rate, investment vs GDP, and perceived corruption were given a ranking between 1 and 4, and freedom of the internet was given a ranking from 0 to 2. Ranks for internet penetration rate and investment vs GDP were added for accepting investment, and perceived corruption and freedom of internet were added for adopting technology, with freedom of internet and internet penetration weighted more heavily. The map showing the risk of adopting the Digital Silk Road adds the ranks from the previous two maps, highlighting the countries with a low internet freedom rating, low internet penetration rate, high perception of corruption, and higher investment from China as compared to their GDP.

Cartographer:

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Projection: Natural_Earth (Pseudocylindrical)

Sources:

ESRI, Freedom House (2018), Miniwatts Marketing Group (2018), Transparency International (2018), World Bank (2018), American Enterprise Institute and the Heritage Foundation (2005-2018)

Image source: torange.biz

