Case Study #4:

How Can We Improve Global Cooperation to Respond to Cybersecurity Challenges in Cyberspace?

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INTRODUCTION

Does your company need an incentive for cooperation on a global basis required to address cybersecurity challenges? How's this – businesses are estimated to expend $300 billion each year on a global scale. The United States, which is considered the leader among countries could possibly reach as high as $1 trillion if faced with a cybersecurity catastrophe (DeTrani, 2015). Cost to businesses is only one component, but cybercrime does not discriminate with businesses. This fast growing, sophisticated infiltration of cyber-criminal activity also affects government. There's an opportunity here – cybersecurity businesses have the technical expertise to mitigate against threats (to a certain degree), and government has the resources to gather information and centralize data on a large scale. In order to combat the global challenges of cybersecurity threats to a maximum level, a collaboration among both public and private entities are necessary (Gamer, 2015).

BUSINESS NEED FOR GLOBAL CYBERSECURITY COOPERATION

The best way to mitigate against cybersecurity challenges in global markets is to share information. Here are some examples of some challenges faced by global, multinational businesses that operate in cyberspace and cybersecurity.

Global Company	Cybersecurity challenges
Amazon	In 2016, Amazon made an investment of $3 billion in their business in India. They had opened a shop back in 2013. India is still largely a cash driven economy, but credit card usage is escalating: hence greater bank vulnerabilities (Chaudhury, 2016)
Apple	At the heels of a terrorist attack, Apple faced controversy with its own government about its encryption standards. As a result, congress is introducing new anti-encryption policies (Cybersec, 2017). Although this was a domestic dispute, the policy change could have a global effect on Apple's operations.

eBay	eBay was under investigation by Indian regulatory authorities after they experienced a SQL injection from unknown hackers. Indian privacy rights may have been violated due to exposed customer passwords (Perry4Law, 2014).
Facebook	Social network platforms continue to grapple with privacy policy issues here and abroad. Users are vulnerable to cybercrime with not only their account data, but also the flow of information they freely share within those accounts. Social network privacy policies are not likely to be scrutinized by users although they do have some control over privacy settings (Jabee & Alam, 2016). On a global scale, social networks have been used as a platform for issues like terrorism.
Google	In 2010, Google suspended its search engine in China because of censorship policies. After being in operations there for four years, Google discovered that consumer accounts had been hacked by human rights activists. Google finally decided that the ethical solution is to offer limited services instead of nothing at all (Waddell, 2016).
Microsoft	Concerns Microsoft faces in a expanded global markets are potential antitrust violations and possible dependency on foreign companies supplying technology components (Yale School of Management, 2013).
Oracle Corp	Oracle is included among the companies mentioned to be replaced as recommended by the Russian government. The Russian president wants to limit dependency on services from foreign countries and is urging state officials and local business to use homegrown suppliers. This is an ironic and interesting fact given that the U.S. is investigating Russia's involvement in hacking the DNC during the presidential election.
Twitter	Twitter is taking a risk in helping Iranian users by using their phone numbers to activate two-factor authentication to keep their content protected from censored attempts from their government (Waddell, 2016).
Yahoo	Yahoo has fallen victim to enormous security breaches in the past couple of years. In 2016, Germany criticized Yahoo for not adopting appropriate encryption techniques and suggested that German consumers transfer their email services from Yahoo to another email service provider (Reuters, 2016).

COOPERATIVE EFFORTS ADDRESSING CYBERSECURITY

Organizations designed to merge collaborative efforts in addressing cybersecurity on a global scale are outlined below and designed to protect intellectual property rights, impose rules and structures which govern trade, combat cybercrime and cyber terrorism.

- **WIPO** – World Intellectual Property Organization is a United Nations agency that was established in 1967. Its mission is "to lead the development of balanced

and effective international intellectual property (IP) system that enables innovation and creativity for the benefit of all (WIPO, n.d.).

- **WTO** – Based in Geneva, Switzerland, World Trade Organization was established in 1995 to enforce rules of trade between nations (World Trade Organization, n.d.).

- **Interpol** – The International Criminal Police Commission was created in Vienna, Austria in 1923. The organization combats against cybercrime and cyber terrorism. "Connecting police for a safer world" is their slogan. Interpol's vision is "that of a world where each and every law enforcement professional will be able through INTERPOL to securely communicate, share and access vital police information whenever and wherever needed, ensuring the safety of the world's citizens. We constantly provide and promote innovative and cutting-edge solutions to global challenges in policing and security." (Interpol, n.d.)

- **ITU** – International Telecommunications Union has a threefold strategic goal: 1) to ensure interference-free operations of radiocommunication systems by implementing the Radio Regulations and regional agreements, as well as updating these instruments in an efficient and timely manner through the processes of world and regional radiocommunication conferences; 2) to establish recommendations intended to assure the necessary performance and quality in operating radiocommunication systems; and 3) to seek ways to means to ensure the rational, equitable, efficient and economical use of the radio-frequency spectrum and satellite-orbit resources and to promote flexibility for future expansion and new technological developments.

RECOMMENDATIONS

In answering the overall question, "How can we improve global cooperation in response to cybersecurity callenges in cyberspace, there are three specific actions which global businesses as a whole can take to improve cooperation within and across industries for the for the purposes of addressing the cybersecurity challenges:

1) Share experiences. Build relationships to help bridge comradery between your private organization and the public sector.

2) "Think globally, act locally" by shaping policies with global expansion in mind and studying policies and governance in countries projected for business operations.

3) Education, awareness, continued elevated knowledge of ever-changing cybersecurity sophistication, training, and documentation play a role in success broadening operations to global markets.

In summary, strong relationships in the public and private sector, knowledge of markets, government entities and policies abroad, and and effective plan and policy based on collaborative efforts and information sharing will help mitigate against global cybersecurity threats to this young industry.

REFERENCES

DeTrani, J. (2015, November 4). What's the key to improving cybersecurity. *World Economic Forum*. Retrieved from https://www.weforum.org/agenda/2015/11/whats-the-key-to-improving-cybersecurity/

Gamer, N. (2015, September 28). The intersection of politics and cyber security. *Trend Micro*. Retrieved from http://blog.trendmicro.com/the-intersection-of-politics-and-cyber-security/

Chaudhury, M. (2016, September 12). The growth of e-commerce in India: cybersecurity and infrastructural challenges. *University of Washington*. Retrieved from https://jsis.washington.edu/news/growth-e-commerce-india-cybersecurity-infrastructural-challenges/

Cybersec. (2017, February 6). 2017 global cybersecurity policy: challenges & highlights. Retrieved from http://cybersecforum.eu/en/2017-global-cybersecurity-policy-challenges-highlights/

Perry4Law. (2014, June 19). Ebay plans to boost its cyber security as global legal actions and litigations may be initiated. Retrieved from https://perry4lawblogs.wordpress.com/2014/06/19/ebay-plans-to-boost-its-cyber-security-as-global-legal-actions-and-litigations-may-be-initiated/

Jabee, R. and Alam, A. (2016, June). Issues and challenges of cyber security for social networking sites. *International Journal of Computer Applications*. Retrieved from http://www.ijcaonline.org/archives/volume144/number3/25162-2016910174

Waddell, K. (2016, January 19). Why Google quit China – and why it's heading back. The Atlantic. Retrieved from https://www.theatlantic.com/technology/archive/2016/01/why-google-quit-china-and-why-its-heading-back/424482/

Reuters. (2016, December 19). Why Yahoo's security problems are a story of too little, too late. Fortune Tech. Retrieved from http://fortune.com/2016/12/19/yahoo-hack-cyber-security/

Yale School of Management. (2013, April 25). Microsoft strategies discusses the challenges of global markets. Retrieved from http://som.yale.edu/news/news/microsoft-strategist-discusses-challenges-global-markets

Tech 2 News Staff. (2016, September 28). Russia is about to ditch Microsoft, Oracle and more foreign services for homegrown technologies. Retrieved from http://tech.firstpost.com/news-analysis/russia-is-about-to-ditch-microsoft-oracle-and-more-foreign-services-for-home-grown-technologies-337741.html

WIPO. (n.d.). Inside WIPO. Retrieved from http://www.wipo.int/about-wipo/en/

World Trade Organization (n.d.). What is the WTO? Retrieved from https://www.wto.org/english/theWTO_e/whatis_e/whatis_e.htm

Interpol. (n.d.). History. Retrieved from https://www.interpol.int/About-INTERPOL/History

ITU. (n.d.). Mission statement. Retrieved from http://www.itu.int/en/ITU-R/information/Pages/mission-statement.aspx