Significant Trends

Name

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Date

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Introduction

Each day people talk about issues on various platforms including social media. The conversations depend on what people encounter every day. Development of various societal issues may also be termed as a trend or trends. Trends, however, vary regarding significance. Some are more significant than others. Among the more notable trends in the maritime industry are Cybersecurity, blockchain technology, and energy consumption efficiency. There are many articles on the significance of cybersecurity. On the other hand, blockchain technology is based on a decentralized network that all members of the network are capable of accessing its ledgers. Besides, the campaign of the reduction of pollution caused by the maritime industry has led to the development of various methods that can be used to reduce pollution emissions thus increasing the efficiency of the fuel used while also reducing pollution caused by shipping vessels. While all the mentioned trends may lead to positive impacts in the maritime industry, their significance in affecting change is not similar. This essay will use the evaluation of various aspects of these three trends thus concluding their ability to affect change in the current period in the maritime industry.

Cybersecurity

Cyber Security is a series of techniques utilized in protecting the integrity of data, networks, and programs from unauthorized access, attack or damage (Weinstein, 2016). By the year 2020, the worldwide market for cybersecurity is expected to be one hundred and seventy billion (Mead, Vasatka, & Craig, 2017). This fast market development is being enhanced by an array of trends in technology.

The need for cybersecurity

The cybersecurity core functionality involves protection of systems and information from primary cyber threats. There are various forms of the cyber threat. They include exploiting kits, application attack, phishing, malware, and ransomware among others (Gordon, Loeb, Lucyshyn, & Zhou, 2015). Cyber adversaries have unfortunately learned on how to start sophisticated and automated attacks by the use of these tactics cheaply. As a consequence, keeping the pace with the operations and strategy of cybersecurity can be a problem. The challenge can individually be felt in enterprise and government networks where cyber threats frequently aim at military, secret infrastructural or political assents of a country or its citizens. Some of the primary reasons for the need for cybersecurity include Cyberterrorism, cyberwarfare, and cyberespionage.

Blockchain technology

The implementation of blockchain technology in the maritime industry promises to solve a vital problem in the maritime industry which is eliminating tedious long processes and paperwork involved in operations. This form of technology is able to achieve this through its decentralized public ledgers that are accessible to all members of the network (Gattesch. et al., 2017). Therefore, this will reduce the verification process of vessels, the insurance among other processes in this sector that required lots of paperwork and time since they would be publicly available to all members of a network. This will, in turn, cut down the time and processes used in ports which will, in turn, save the industry a lot of time and money.

The need for Blockchain in Maritime

The implementation of blockchain in maritime promises creation of great value since it will increase efficiency in ports, create transparency in maritime processes, and also enable an insurance company to track transportation vessels in real time (The Maritime Executive, 2017).

Efficient energy consumption and green technology in maritime

The critical role played by reducing pollution levels in maritime sector is one that is easily understandable. This is because, in the current period, awareness for the need of environmental conservation is one that is known to most people. To achieve this goal, there are various measures that can be taken. The first one is adopting the use of environmentally friendly fuel in transportation vessels. Another measure is the creation of systems that recycle the waste gas in their function thus reducing the amount of waste gas emitted. The implementation of subtle changes in this area is expected to reduce pollution in this sector in significant proportions (Dixon, 2017). In addition, changes in the ship systems used could save a lot of fuel during operations due to the increased efficiency.

The Maritime Industry

The maritime industry has been a key contributor in global trade and thus making it a significant entity and economic stimulator all over the world. This industry has been vital to the U.S. since time immemorial. The founding fathers who acknowledged national defense recognized the significance of protecting the Marine domain (Bueger, 2015). The founding fathers identified protection of the coast and detection of smuggling as one of the first new federal government's responsibilities. Over two hundred years down the line, Marine security is still significant to America`s economic health and national safety. Maritime protection is not only critical to America but also to other nations in the world (Raju, 2017). The issue that makes Marine Security trend is the cases of piracy which is developing with every passing day thus making it paramount for the security of this sector to keep developing consistently. When the marine is safely secured, then it means the cases ought to be low unlike when there is no security to the maritime.

Applicability of Cybersecurity, blockchain technology, and energy saving green technology in the Maritime industry

The Maritime industry is dependent on various information systems in a major way for efficient communication and transportation of trade goods that depend on this sector. Given this reality, a new reality is also revealed; that of protecting vital information used in this sector thus ensuring the safety and efficiency of this sector. Cybersecurity is the answer to the puzzle of how safety in the maritime industry can be ensured. Various laws and regulations have been implemented in the U.S. such as the "Maritime Transportation Security Act of 2002" and the "Port Security Grant Program" which are just a few on the many key measures are taken to secure maritime sector (Foote, 2017). On the other hand, while blockchain technology offers a lot of promise in this industry, the technology used is relatively new and thus not readily available. However, in the current period, there are firms conducting pilot projects using it. The implementation of green technology in maritime is also faced by a lot of barriers. For instance, it may be impossible for one to make all the ship owners to change the systems of their vessels for the purposes of energy conservation since business people do not like to incur additional cost. In addition, the new systems and fuel are untested in the industry and thus it may be difficult to gauge their effectiveness in terms of cost and functionality. Besides, there are huge knowledge gaps about green technology among the public thus making it difficult for most people to adopt it (Johnson & Anderson, 2014). Taking the above analysis into consideration, among the three trends, cybersecurity is the most likely to affect significant change in the current period. This is because business people can willingly implement it since it has an economic incentive of its use. Also, the technology to use it in the current period is available and still developing with each passing day.

Key Statistics of some of the Trending Subject Areas

Impact approximate on total U.S. GDP in the U.S by 2030 due to adoption of Biofuels $425 billion dollars and for the transportation industry only $40 billion dollars by 2030 (Fuller, R. et al. 2015)

Cost of cybercrime in the global transportation industry $7.36 million dollars per year (Ponemon Institute. Et al. 2017)

Annual Economic cost for emissions in the U.S shipping sector $13, 411, 613 (Gallagher & Taylor, 2003)
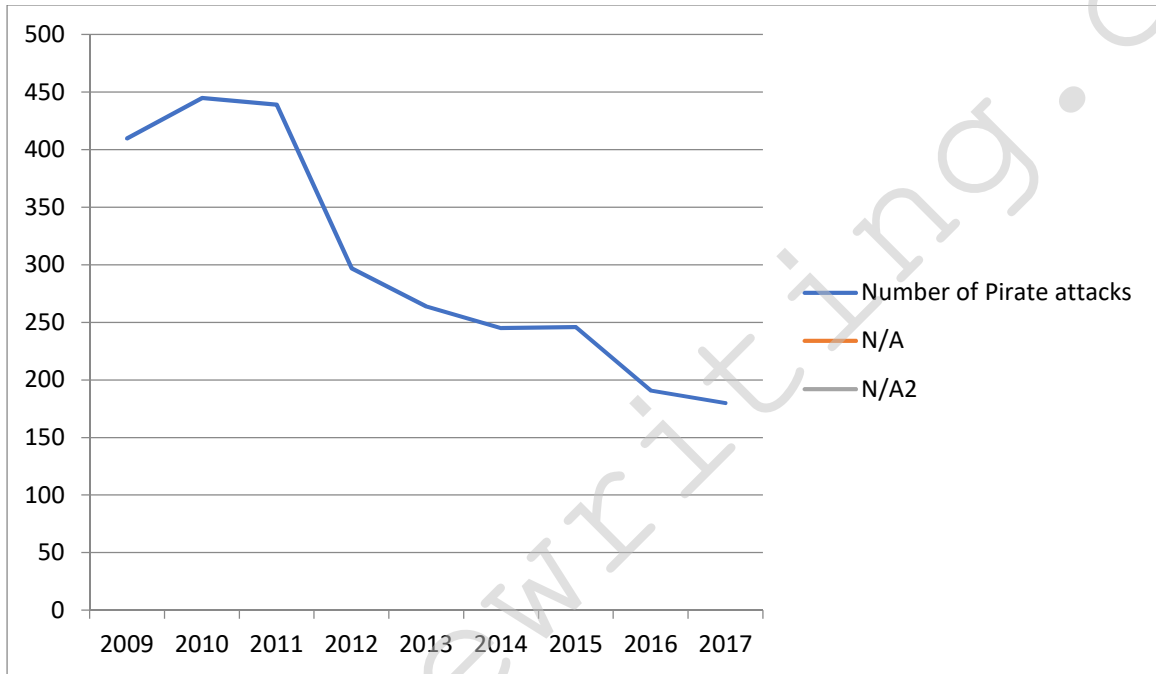
Annual cost of cybercrime worldwide 600 billion (McAfee. et al., 2016)

A Graph Representing the Number of Data Breaches in the U.S.
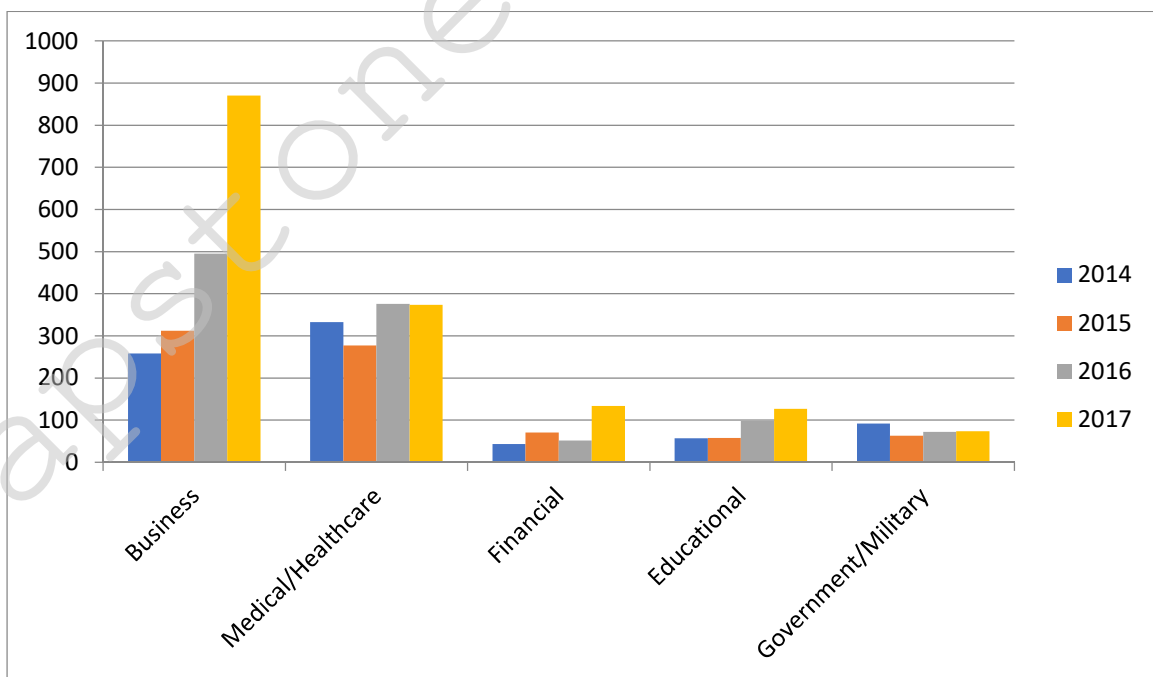
(Statista, 2018)

A Line Graph Representing the Number of Pirate Attacks all over the Universe between the Year 2009-2017

(Statista, 2018)

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