

Hector Gomez

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Professor Charlie

# Policy Making and Human Perspective within the Cyber World

## Introduction

(1) The Human perspective in the cybersecurity world has led us to where we are today.

We have developed systems and processes that mend the online association. Systems such as the CIA Triad and SCADA have developed software that secures data and provides for organizations. At the beginning of the making of such systems, humans used their perspectives to enable their creation. The online world can be a dangerous place which is why the development of The CIA Triad and SCADA systems played a huge impact. Things need to be fixed and almost perfect for the future in order for things to run smoothly. Within this analytical paper, predictive knowledge, The CIA Triad, and SCADA systems will be discussed.

## Predictive Knowledge Within the Cyber World

(4) Is predictive knowledge viable within the cyber world? According to Evaluating predictive knowledge is " a group of approaches to machine perception and knowledgeability using large collections of predictions made online in real-time through interaction with the environment." As humans, we make careless mistakes no matter what is it. With that being said

using predictive knowledge in the cyber world cause be totally wrong. (5) According to Jonas, "predictive knowledge falls behind the technical knowledge which nourishes our power to act, itself assumes ethical importance." If humans over predict they can often overcorrect problems that weren't even there. It is strongly believed that using predictive knowledge within cyber attacks is a powerful resource in performing risk assessments to help find out who the targets are. Even though there are negatives, predictive knowledge will strengthen cyber security infrastructure. There are many ways predictive knowledge can be helpful. Such as systems built to help organizations to prosper or policies. This brings me to my next point of special systems built for processing data and maintaining efficiency. We need such systems in order to have more success rather than failure. We rely on human knowledge to develop everything but in the future systems will be able to have a mind for themselves. This means we create them and set them off to develop because human error is a major cause of a lot of problems. A major system that was created and is very beneficial in the cyber world today are SCADA Systems.

## SCADA Systems

(7) SCADA stands for Supervisory control and data acquisition and it is a system of software and hardware elements that help out industrial organizations. According to Inductive Automation "SCADA systems are crucial for industrial organizations since they help to maintain efficiency, process data for smarter decisions, and communicate system issues to help mitigate downtime." Even though people believe that SCADA systems are very safe, it should be known that they are actually not as safe as we think. There are two major threats as we speak and they are unauthorized access to the systems and packet access to network segments. For the unauthorized access, it could be human access, viruses, etc. that can affect the SCADA system

leaving everything vulnerable. As for Packet access, it just means that if packets are sent to SCADA systems then whoever sent them has the ability to control the systems. (10) Some other vulnerabilities to critical infrastructures are DDoS attacks, Malware attacks, and Web Application attacks. According to SCADA Systems, “SCADA vendors are addressing these risks by developing specialized industrial VPN and firewall solutions for SCADA networks that are based on TCP/IP. Also, whitelisting solutions have been implemented due to their ability to prevent unauthorized application changes.” If and when these risks are solved, SCADA systems will be as safe as we believe them to be. (11) According to DerekSchaap SCADA plays a role in mitigating these risks when “the human factors can receive the data from these systems and implement change.” This means that when the system has a failure or an incident occurs, humans who specialize in these systems fix it and make it to where it doesn’t happen again. (6) As more problems occur within the systems, it means that the system will implement changes to keep mitigating those risks. That way the SCADA systems will continue to work and improve. Another system that was created to help with keeping data secure and benefits the cyber world a lot is the CIA Triad. It explains the importance of securing passwords and very important data that we have to access every day.

## The CIA Triad

(3) The CIA Triad is a model in information security that was created to help evaluate how organizations can keep their data secure. CIA stands for confidentiality, integrity, availability. According to the Center for Internet Security confidentiality means that “Data should not be accessed or read without authorization. It ensures that only authorized parties have access. Attacks against Confidentiality are disclosure attacks.” Integrity means the data should

not be changed or tampered with at all. The Fruhlinger article states that availability means “Authorized users should be able to access data whenever they need to do so.” The CIA Triad is important because it is the center of the development of security systems and policies for all organizations. It helps to keep data safe and when you go against cyber threats. (2) There are two main things that help with restricting access to data, which are Authorization and Authentication. Authorization is things such as passwords and face ID, which allows systems to identify the user. Authentication is who has the right to access certain information. For example, if you were to get hacked and there is personal information on your files, authentication helps because there could be another access point to that certain information that only you can access. Those two A’s fall under confidentiality. (7) Which is very important within the Cyberworld. Nowadays if you don’t have a password or do not have multiple ways of protection to access your information, your information could be compromised. Hacking is very common in these recent years. People do it for multiple reasons which is why we need to continue to develop things within the cybersecurity world and keep our information safe. (8) That’s why the CIA Triad is very important, It is something we use every day for our phones, social media accounts, banking accounts, etc. for protection. It plays a huge role in today’s society because everything is online nowadays and without this protection, things can go left very quickly.

## Conclusion

In the final analysis, we need systems that can help protect us from viruses or getting hacked. It is a very common thing to be hacked or a virus contaminated your devices. These systems help store and protect your data. It all started with humans but that comes with a downside. (12) A major issue within the cyber world is human error. The human error itself

causes major issues that still go on today. This is why we need SCADA systems and the CIA Triad. Not only do they continue to develop within themselves and through humans but they prevent many issues as they come and that helps their development process as well. All in all, everyone makes mistakes but the making of the systems and how advanced they are today has made a significant change within the online world.

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