Understanding the CIA Triad

Bailey R. Burgess

Old Dominion University

CYSE 200T

Professor Kirkpatrick

September 17, 2023

Understanding the CIA Triad

CIA stands for confidentiality, integrity, and availability. In the article "What is CIA Triad? Definition, Explanation, Examples" mentions how these three words (confidentiality, integrity, and availability) are meant in a different context when it comes to the CIA Triad. "In this context, confidentiality is a set of rules that limits access to information, integrity is the assurance that the information is trustworthy and accurate, and availability is a guarantee of reliable access to the information by authorized people."

Confidentiality. When it comes to setting rules that limit access to information passwords play a big part in that role. Almost every website that asks you to make an account nowadays requires passwords and will let you know if it is strong or not. An example of great confidentiality I need to log into my school accounts and it makes me go through two-factor authentication. The article also gives more examples of confidentiality such as biometric verification, security tokens, key fobs, or soft tokens. Confidentiality is extremely important to cybersecurity as it is one of the most important tools to prevent getting hacked.

Integrity. In the article when it talks about integrity in this context it is "the assurance that the information is trustworthy and accurate." An example of integrity that I see in this context is when you are trying to sign into something and then it stops and asks you if you are a robot and to click certain images. This is done to protect the safety of the website and ensure that whoever is trying to access is being honest.

Availability. It is pretty self-explanatory when it comes to availability. As mentioned in the article when it comes to availability it states " means information should be consistently and readily accessible for authorized parties." It also mentions quick recovery and a way that I

currently see apps or websites doing that in a way is Google. On almost every Google app, it automatically saves your information without having to manually save it yourself.

Authentication and authorization. "Authentication verifies the identity of a user or service, and authorization determines their access rights." They both play super important roles and work very well together. An example of authentication would be trying to make an Instagram account and then it will send you a verification code to your email to make sure it is you. An example of authorization is trying to get access to a website and it doesn't allow you to because you are not authorized to use that website.

Conclusion

After reading the "Chai Article" I gained a better understanding of the CIA Triad which stands for confidentiality, integrity, and availability. I learned how confidentiality plays an important role as it "limits access to information", integrity makes sure that the "information is trustworthy and accurate", and availability makes sure that "information should be consistently and readily accessible for authorized parties." I also did some research on my own to learn more about authentication and authorization and the difference between the two. I then gathered that "authentication verifies the identity of a user or service, and authorization determines their access rights." In addition to that, I also was able to discover examples from each.

References

Chai, W. (2023). What is the CIA Triad? Definition, Explanation, Examples. *WhatIs.Com*,

    www.techtarget.com/whatis/definition/Confidentiality-integrity-and-availability-CIA.

(2023.) "Authentication vs. Authorization: What's the Difference?" *OneLogin*,

    www.onelogin.com/learn/authentication-vs-authorization#:~:text=Authentication%20and

    %20authorization%20are%20two,authorization%20determines%20their%20access%20ri

    ghts. Accessed 17 Sept. 2023.