Cyber What? - A Systematic Review

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Abstract

Cybersecurity is probably the most important facet of national security today. Its importance stems from the fact that it permeates every facet of everyday life in almost all societies. More importantly, cybersecurity is a critical operational component and enabler of national critical infrastructure; typically, part of integrated data/information (hereafter referred to as content) management systems and functional control systems. However, when consulting online content on the subject matter (from blogs to business to academic portals) cyber is combined with several constructs and semantically and/or etymologically different. This may seem trivial, however, how constructs or concepts are understood and articulated matters for both the crafting of theory as well as public policy formulation. The research aims to clarify the semantics around the combination of cyber as a construct and constructs such as security, intelligence, counterintelligence, threat, threat intelligence, and others. The taxonomic clarification of the various combinations of these constructs finds general application within education institutions, business entities and government organisations at large. In addition, a well-established taxonomy provides a robust grounding for clear communication within and between organisations ensuring enhanced collaborative interaction, contracting, safety, and resilience. The aim of the research was achieved by following the published methodology of Henrico and Putter (2023) - a systematic literature review was combined with ATLAS.ti qualitative analysis software to construct a database of relevant published literature that conformed to a set of parameters which was then subjected to qualitative analysis (coding) that facilitated further rich description and findings. The research is relevant due to the clarification it lends to each narrative that is constructed around cyberspace and its security. These taxonomic clarifications are also useful additions to curricula that offer education and training on cyber-related subject matter. Furthermore, organisations providing security and intelligence within the context of cyber-related functional applications can use the suggested taxonomic clarifications to enhance their training material and working procedures.

Kevwords

Cyber security, Cyber threat intelligence, cyber intelligence,