CSIA RFI Responses, January 15, 2019

Update to the 2016 Federal Cybersecurity Research and Development Strategic Plan RFI Responses

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Question:

What changes to cybersecurity education and workforce development, at all levels of education, should be considered to prepare students, faculty, and the workforce in the next decade for emerging cybersecurity challenges, such as the implications of artificial intelligence, quantum computing, and the Internet of Things on cybersecurity?

From my perspective:

All levels of Education:

A well-rounded Information Technology education foundation is important as a prerequisite, or in unison with Cybersecurity study, to understand underlying principles of the topic. AI, quantum computing, and the Internet of Things are all advanced topics that are derived from some form of Information Technology.

What cybersecurity jobs are most critical/relevant?

- I believe Cybersecurity careers should be broadly categorized to determine “most relevant positions” to plan for directed education on Cybersecurity Topics. For example, are the technical(network), management (risk analysis), or a combination of both the most necessary for a time period?

How to deliver the message in Cybersecurity Education?

- Grants to private/public sector for more “hands on education” in IT and Cybersecurity Topics. Why? As stated, Information Technology and Cybersecurity integrated as a foundational step to more in-depth learning on the topic. Cybersecurity is a sub-topic of Information Technology.

- Text Books, Guides, and Videos that describe cybersecurity without product influence to teach Principles in Cybersecurity Engineering and utilize as a “stepping stone” for advanced study. Why? Cybersecurity is a topic that is important to learn, irrelevant of the necessity for a career field. Households, small businesses, and large Corporations could all utilize a path to become educated in the principles of Cybersecurity or more advanced, in-depth, study.

Bill Kaiser