

Strategies and Approaches for Curriculum Development and Training of Faculty in Cybersecurity Education

Authors : Lucy Tsado

Abstract : As cybercrime and cyberattacks continue to increase, the need to respond will follow suit. When cybercrimes occur, the duty to respond sometimes falls on law enforcement. However, criminal justice students are not taught concepts in cybersecurity and digital forensics. There is, therefore, an urgent need for many more institutions to begin teaching cybersecurity and related courses to social science students especially criminal justice students. However, many faculty in universities, colleges, and high schools are not equipped to teach these courses or do not have the knowledge and resources to teach important concepts in cybersecurity or digital forensics to criminal justice students. This research intends to develop curricula and training programs to equip faculty with the skills to meet this need. There is a current call to involve non-technical fields to fill the cybersecurity skills gap, according to experts. There is a general belief among non-technical fields that cybersecurity education is only attainable within computer science and technologically oriented fields. As seen from current calls, this is not entirely the case. Transitioning into the field is possible through curriculum development, training, certifications, internships and apprenticeships, and competitions. There is a need to identify how a cybersecurity eco-system can be created at a university to encourage/start programs that will lead to an interest in cybersecurity education as well as attract potential students. A short-term strategy can address this problem through curricula development, while a long-term strategy will address developing training faculty to teach cybersecurity and digital forensics. Therefore this research project addresses this overall problem in two parts, through curricula development for the criminal justice discipline; and training of faculty in criminal justice to teaching the important concepts of cybersecurity and digital forensics.

Keywords : cybersecurity education, criminal justice, curricula development, nontechnical cybersecurity, cybersecurity, digital forensics

Conference Title : ICCJ 2023 : International Conference on Criminal Justice

Conference Location : Las Vegas, United States

Conference Dates : May 11-12, 2023