Addressing the Need for Interculturality in Cybersecurity Education

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Outline

- Introduction
- Cybersecurity Education
- Cybersecurity and Culture
- Global Virtual Team Projects
- Conclusion

Introduction

- The importance of digital tools in Higher Education
- What is Collaborative Online International Learning (COIL)?
- Benefits of COIL:
- Imparting skills in language, virtual intelligence, and intercultural competencies
- Offering international exposure to students who might not be able to go abroad
- Limited access to collaborative Global Virtual Teams (GVT) projects - Reluctance to alter the approach to education in certain fields - Neglect of soft skills in traditional IT coursework
- The importance of social and transdisciplinary skills - Educators' role in preparing graduates for the kind of jobs cybersecurity professionals enter
- Facilitation of virtual intelligence, resilience, practice-readiness, frustration tolerance, and empathy - Development of essential skills for cybersecurity professionals

Cybersecurity Education-1

- Importance of cybersecurity education
- Rise in demand for skilled cyber professionals
- Objective of strengthening the cybersecurity workforce
- Available at different levels
- Covers a broad range of technical subjects
- Designed to provide students with necessary expertise

Cybersecurity Education-2

- CYBER.ORG program
- Suitable content for different age groups
- Impact of the program on the future of the cyber workforce
- Collaboration between CISA, NSA, and FBI
- Designation of institutions as National Centers of Academic Excellence in Cyber Defense, Research, and Cyber Operations
- Objectives of the program
- Importance of cybersecurity education in addressing cyber threats
- Role of programs like CYBER.ORG and NCAE-C in developing a strong cybersecurity workforce.

Cybersecurity and Culture-1

- Relationship between cybersecurity, data protection, and culture
- Comparison of privacy and individual rights to personal data between the US and Europe
- Differences in attitudes towards privacy and risk among cultures
- Differences in attitude towards privacy and risk among cultures

Cybersecurity and Culture-2

- Disparities regarding the perception of risk and the need for risk avoidance in various cultures
- Tight and loose cultures
- Disparities among various demographics
- Gender differences in online behavior
- Differences among people of color and white males
- Attitudes   towards cybercrime
- Cybercrime definition varies depending on the cultural environment
- Perpetrators may be viewed anywhere from passive acceptance to even patriotic heroes

Cybersecurity and Culture-3

- Cybercriminals often invoke negative attitudes towards cultural "Others" when justifying the victimization of people
- Impact of digital technology on cultural values and social behavior: Algorithms , social engineering, and data collection impact people's preferences and decision - making
- Implicit biases of software creators
- Standards developed to regulate cybersecurity largely determined by Western countries
- Privacy and security attitudes of Western societies as the "norm" whereas those of non-Western cultures as "exotic"
- The relevance of cultural factors for the nature of cybercrimes
- The importance of determining the cultural "footprint" in investigations into the source of such crimes
- Questioning the effectiveness of a "one -size-fits -all" approach to cybersecurity

Global Virtual Team Projects

- Prevalence of GVT projects in IT -related work
- GVT projects at Higher Education institutions
  - Internationalization at Home efforts to provide students with exposure to other cultures.
- Virtual Business Professional Project
  - Project initiated by the USC Marshall School of Business
  - Involves 17 universities across 10 countries and approx. 500 students in ca. 90 heterogeneous teams
  - Students enrolled in an Informations Systems program at Mainz University of Applied Sciences took part in the 6-week project
  - Results of survey taken after the project underlined the importance of engaging in GVT projects for developing intercultural competencies, virtual intelligence and communication skills

Conclusion

To sum up, there is …..

- growing dependency   and an increase in security threats.
- an increasing demand for cybersecurity professionals.
- a call for more transdisciplinary approaches   in education.
- the value of collaborative   projects such as GVT projects.
- the importance of intercultural competence, emotional intelligence, and empathy in order to reduce bias.

Global progress means collaboration!!!