

NICE Community Coordinating Council

Meeting Agenda

February 22, 2023 | 3:15-5:00 p.m. ET

I. Introduction and Ground Rules – NICE Program Manager Susana Barraza

- The NICE Community Coordinating Council was established to provide a mechanism in which public and private sector participants can develop concepts, design strategies, and pursue actions that advance cybersecurity education, training, and workforce development.
- Members are encouraged to participate in the meeting via the platform chat space and the Q&A space.
- Reminder: The meeting it is not intended for marketing or other commercial purposes.

II. Opening Remarks

- a. Interim Academic Co-Chair – Paul Bingham, Vice President and Dean, College of Information Technology, Governors University
 - Continuing with the integration between academia and industry with respect to learning opportunities, students are looking to highlight their skills when applying for jobs as well as standardize nomenclature and credentials, and how they are shared and verified within the industry.
 - The number of digital credentials increased by 73% over the past few years, which was about 75 million digital credentials provided in one year. Being able to earn badges and credentials may prove to be a motivator for students continuing on to earn their degrees.
 - A recent working paper from Columbia University Teachers College looked at dual enrollment programs, where high school students take college courses for credit. Community Colleges may benefit from this, as students are more likely to enroll in the colleges where they are earning their dual enrollment credit.
- b. Government Co-Chair – Rodney Petersen, Director of NICE
 - There is a new [Executive Order \(EO\) on Further Advancing Racial Equity and Support for Underserved Communities through the Federal Government](#). It is the second in a series of Executive Orders that shows the Federal Government's commitment to diversity and equity inclusion. The EO:
 - Embeds equity into federal policies, programs and activities as well as, collaborates with underserved communities and helps to build equity within those communities.
 - Advances equitable procurement and civil rights through diversity.

III. Standing Items

a. Report Roundup – Learning from Good Ideas

Global Cybersecurity Outlook 2023 report

Presented by Gretchen Bueermann and Natasa Perucica, World Economic Forum

URL:https://www3.weforum.org/docs/WEF_Global_Security_Outlook_Report_2023.pdf

- The speakers reported on the Global Cybersecurity Outlook 2023 Report and shared information on the cybersecurity labor gap.
- A quantitative survey as well as an in-depth qualitative survey were completed, interviewing over 300 cybersecurity and business leaders.
- Interested in the gap between business leaders (board members/CEOs) and cybersecurity leaders (ISO/CSO) and how they align on certain issues.
- In 2022, ten percent of cybersecurity leaders stated that people were missing critical people skills, but business leaders stated zero percent.
- Ten percent of business leaders state that they are not ready to deal with cybersecurity issues. The hope is that changes by next year's survey.
- More than half of IT and technology organizations reported they feel they have the skills they need today. Critical infrastructure industries state that they are missing the skills needed to perform their job duties.
- With 3.4 million open job roles (globally), concrete action is necessary to fill the gap. The top 3 "issues" with filling the gap are:
 - Leaders need to actively support diversity, equity, and inclusion and hire from a diverse candidate pool.
 - Making cybersecurity available through the expansion of the talent search. Move beyond traditional parameter searches and more accessible job postings creating an environment that enables inclusivity.
 - Prioritize aptitude over technical skills.
- An initiative to bridge the cybersecurity skills gap will take place in the coming months. It will look at:
 - Building a strategic framework to explore the different components of the cybersecurity career cycle. Examine the attractiveness of a cybersecurity profession, as there are unknowns that need to be clarified.
 - Reviewing the cybersecurity education and training programs, as some do not correspond to the landscape of the workforce.
 - Hiring cybersecurity professionals and prioritizing the skill set and not formal education.
 - Retaining employees and help them build skills for cybersecurity careers.

b. Strategy Stories – New Developments that align to NICE Strategic Plan

Cybersecurity Across Disciplines (CyAD)

Presented by Corrinne Sande, Whatcom Community College

URL: <https://ncyte.net>

- Corrinne Sande is the Executive Director for the National Cybersecurity Training and Education Center (NCyTE). The National Science Foundation (NSF) Advanced Technological Education (ATE) funds NCyTE.
- Over August 1 - 2, 2023, the Cybersecurity Across Disciplines (CyAD) conference will be held in collaboration with Dr. John Sands of Moraine Valley Community College.
- The goal of the conference is expanding cybersecurity awareness and knowledge across other STEM disciplines at community/technical colleges. Additionally, to help cyber faculty understand discipline-specific cybersecurity needs. CyAd topics will include:
 - A basic introduction to cybersecurity training for ATE Center community college faculty in other disciplines.
 - Breakout workshops will also review critical aspects of cybersecurity applied to:
 - Manufacturing/Automation
 - Critical Infrastructure
 - Business
 - Healthcare and Life Sciences
 - Automotive/Autonomous Systems.
 - Schedule topics that come in through a call for proposals.
 - Create customized training, case studies or scenarios around each discipline.
 - Bring in demonstrations of resources and tools.
- Advanced workshops have been done on manufacturing and automation with Florida Advanced Technological Center (FLATE). Additional CyAD workshops will take place in March and May. Information can be found through the following link: <https://ncyte.net>.
- Q&A:

Q: For those who are interested in joining the upcoming conference, how would they go about getting information?

A: It will be in the newsletter. Currently in the process of putting it on the website along with a registration form. Travel stipends will be provided to 60 faculty.

- c. Framework Feature – Applications and Uses of Workforce Framework for Cybersecurity
Using the NICE Framework in Montana, Andy Hanks, State CISO, State of Montana
- Montana had been using the NICE framework for four years primarily to grow the workforce program at the time Andy became the CISO for the state. They wanted to prioritize gaps and needed a definitive description of cybersecurity nomenclature.
 - The framework is primarily used for employee self-assessments, workforce development, program management, and program development, with respect to the Information Security and Data Privacy program.
 - Starting with the NICE Framework spreadsheet table of contents page, columns for proficiency were added for when employees complete their self-assessment. The links on the table of contents page allow the employees to find more details about the work role descriptions.
 - In another column, with respect to the work role, employees are to indicate their responsibility: whether primary, secondary, or no responsibility.
 - An additional column is added to see if the employee is interested in the work role. They are seeing more interest in offensive security so that they can be ethical hackers. It allows them to understand an employee's interest for future training and education paths.
 - The assessments are reviewed by management with the employee. Proficiency targets are established so they know what development needs to take place and how to fill the gaps in their cybersecurity education. If an employee is listed as a primary or secondary for a work role, the expectation is their proficiency to be at a level two or three.
 - Formalized training opportunities are made available via formal external training and cross training within the organization. The later reinforces Knowledge, Skills, Task (KST) with the employee in training.
 - The program manager reviews the data to assess the threats and then uses it to prioritize the function work role gaps based on the risks identified. They look at what needs to be done to fill the gap by examining employees closest to filling the roles and upskilling them. They also consider employees interested in filling those roles and upskill them as well. If necessary, they will use the KSTs from the framework and hire new employees to fill the gap using the NICE framework.
 - Program development is used by upskilling and maintaining the skills of the current staff, keeping and retaining employees and allowing their employees to grow their careers. If particular employee retention is not possible, then a risk ranking of work roles is conducted so they maintain proper staff.
 - Allowing employees to upskill and learn different skills retains employees. Once certain aspects of cybersecurity are covered they can go from being reactive to a more proactive approach and search for threats prior to them reaching the environment.
 - Cultivating apprenticeships and internships with colleges and universities is key in getting new talent within an organization.

d. Research Review- Driving Research on Effective Practices

Comparison of Public and Private Sector Cybersecurity and IT Workforces

Presented by Sasha Romanosky and Ryan Johnson, RAND Corporation

URL: https://www.rand.org/pubs/research_reports/RRA660-7.html?utm_source=AdaptiveMailer&utm_medium=email&utm_campaign=7014N000002G9qlQAC&utm_term=00v4N00000kS1L7QAK&org=1674&lvl=100&ite=272356&lea=1775294&ctr=0&par=1&trk=a0w4N000009enRUQAY

- The National Defense Authorization Act (NDAA) requested a zero-based review of the Department of Defense (DOD) cybersecurity and IT workforces. The initial request was for an inventory of people in different roles, the gaps in those roles and a way to modernize the workforce.
- It called for an analysis and comparison between DOD and the private industry workforce and how the DOD compares to the work being done in the private industry.
- Created a universal taxonomy of workforce roles between DOD and the private sector. It is not precise, but with proper documentation and assumptions noted, provides the idea of what comparisons were made based on allocation and salaries in the defined work roles.
- Key Findings:
 - The public sector emphasizes computer and information technology (IT) support and administrative roles. The private sector emphasizes the allocation of software development and testing roles.
 - The public sector tends to hire more IT support workers and pays people in those categories more. The public sector is more customer facing and appeasing than the private sector.
 - The frameworks being used are not the same. They were unable to match some job roles one-to-one, making comparisons difficult. No analysis will ever be perfect.
 - The private sector positions tend to have ambiguity in work performed. The DOD primarily relies on work roles while the private industry primarily relies on work title. They measure different things so the data can be skewed.
- Q&A:
 - Q: Would you consider lining this to CIP codes to see the number of students aligning to these work roles?
 - A: No, we didn't do that, but it's a great idea. Being able to account for an emerging work force and align them somehow.
 - Q: Did your analysis of salary by role account for different levels of expertise in the subject area?
 - A: No, they did not. We were limited by the data available from DLS, which was comprehensive, but not exhaustive.
 - Q: In the balance between public and private, where would the jobs for government contractors be?
 - A: I do not think they would be accounted for in the public sector, because it is generally not accounted for, so probably in the private sector.

IV. Working Group Updates

a. Promote Career Discovery

Co-chair: Keith Davis, Koinonia Family Life, Inc

- Making progress discussing and planning around the ambassador program. Excited about rolling this out in the near future.
- If members are interested in programs of ambassadorship please reach out to the co-chairs.
- Site: [Promote Career Discovery Working Group | NIST](#)
- Next meeting: March 15, 2023 at 3:30 p.m. ET

b. Transform Learning Process

Co-chair: Dr. Donna Schaeffer, Marymount University

- There are currently two active projects:
 - The first project is focused on diversity and inclusion resources, which will culminate in a spreadsheet of resources such as training, apprenticeship programs, scholarship opportunities, etc. Additionally, a two-pager will be created on: 1.) guidance on how to apply for internships and scholarships and 2.) pathways focusing on adjunct professors.
 - The second project is looking to gain more information for CAE schools on how they use performance-based assessments within their academic programs.
- Suggested starting another Community of Interest (COI) on ‘Diversity and Inclusion’ by working in a joint meeting with the K12 community.
- Site: [Transform Learning Process Working Group | NIST](#)
- Next meeting: March 14, 2023 at 2:00 p.m. ET.

b. Modernize Talent Management

Co-chair: Lynsey Caldwell, Leidos

- Brainstormed ideas and topics for guest speakers and future topics of interest.
- A “World of Haiku” presentation and demonstration was provided by Eric Basu, Founder and CEO. ‘The World of Haiku’ introduces learners to careers in cybersecurity using an augmented reality (AR) role-playing game environment. Users gain skills with scenario-based learning. <https://www.worldofhaiku.com/>
- Work continues on the ‘Writing Effective Job Descriptions for Employers’ in order to provide good guidance and tools to recruit successfully. An initial draft has been created. The project team is now refining the document.
- The next working group meeting will feature a guest speaker on Artificial Intelligence and Machine Learning (AIML) and how it’s used to match talent to jobs.
- Site: [Modernize Talent Management Working Group | NIST](#)
- Next meeting: March 16, 2023 at 1:00 p.m. ET

V. Community of Interest Updates

a. Apprenticeships in Cybersecurity

Co-chairs: Tony Bryan, CyberUp; Debbie McLeod, McLeod Information Systems

- A Department of Labor (DOL) update was given regarding and in support of Black history month. Site: <https://www.apprenticeship.gov/employers/diversity-equity-inclusion-accessibility>
- The group was provided a presentation on the Navy MAP Apprenticeship Program. The program serves all four branches of the military and is currently the largest apprenticeship program in the United States. They are aligned with the NICE Framework and registered with the DOL as a registered apprenticeship program.
- Site: [Apprenticeships in Cybersecurity Community of Interest | NIST](#)
- Next meeting: March 10, 2023 at 11:00 a.m. ET

b. Cybersecurity Skills Competitions

Co-chairs: Amelia Phillips, University of Cumberlands; David Zeichick, California State University, Chico

- A speaker from CAL-Poly Pomona presented on a Red vs Blue (RVB) game challenge: <https://www.calpolyswift.org/cyber-challenge/> It is a self-sufficient environment allowing students to test their blue team skills. Scripts run in the background in attempts to leverage vulnerabilities as students try to patch them.
- Work continues on creating a site of all known cybersecurity competitions making it easily searchable and filtered. A demo will be provided during the next meeting.
- Site: [Cybersecurity Skills Competitions Community of Interest | NIST](#)
- Next meeting: March 16, 2023 at 3:30 p.m. ET

c. K12 Cybersecurity Education

Co-chair: Thomas Trevethan, Palo Alto Networks

- The group celebrated Black history month and learned of 10 black computer science engineers about whom people should know. (<https://elective.collegeboard.org/black-computer-science-pioneers-everyone-needs-know>)
- Gearing up for the Cybersecurity Career Awareness Week in October.
- Extending the Cybersecurity Career Awareness Week (CCAW) throughout the year with a professional development series.
- Working on the ambassador's program in coordination with the Promote Career Discovery working group.
- Site: [K12 Cybersecurity Education Community of Interest | NIST](#)
- Next meeting: March 8, 2023 at 3:30 p.m. ET

d. NICE Framework Users

Karen Wetzel, Manager of the NICE Framework

- The cybersecurity skills journals (CSJ) has put out information about the NICE Framework that will be out later this year. Information about the CSJ can be found [here](#).

VI. Project Progress Reports

a. NICE Conference and Expo (Seattle, Washington) – June 5-7, 2023

Presented by Susi Barraza, NICE Program Manager

URL: <https://niceconference.org/>

- The NICE conference is June 5 – June 7, 2023 at Westin Seattle in Seattle, Washington.
- The proposal deadline was last week. Those who submitted will be notified in early March.
- Early Bird Registration: February 27, 2023 – March 19, 2023; Regular Registration: March 20 – May 14, 2023; Pre-conference event in Seattle, WA: April 2023 (est.); Late Registration (if applicable): May 15 – May 28, 2023
- The Westin Seattle room block is open: <https://niceconference.org/hotel-travel/>
- There is a government rate for the hotel. Register soon as it is limited.
- A local stakeholder pre-conference event will take place on April 3, 2023 in Seattle, Washington. More information will be forth coming.
- Connect with us:
 - Website: www.niceconference.org
 - Email: info@niceconference.org
 - Twitter: [@nicecybercon](https://twitter.com/nicecybercon)
 - NICE Conference LinkedIn Group: <https://www.linkedin.com/groups/12696840/>

b. NICE K12 Cybersecurity Education Conference (Phoenix, Arizona) – December 4-5, 2023

Presented by Felicia Rafeliff, iKeepSafe

URL: <https://www.k12cybersecurityconference.org/>

- The NICE K12 Conference will take place December 4 – December 5, 2023, Pre-conference workshops will be on Saturday, December 2, 2023.
- Actively recruiting the 2023 planning committee. If interested please email Felicia: felicia@ikeepSAFE.org. The meetings are the 4th Thursday of each month at 3:30 p.m. eastern, with the first meeting taking place March 23, 2023.
- The conference will be at the Hilton Phoenix Resort at the Peak.
- The 2023 pre-conference workshops will be held at Grand Canyon University. A tour will be provided as well as hands-on activities.
- Key Dates:
 - March 7, 2023: Save the date and venue announcement
 - March 23, 2023: 1st planning committee meeting
 - Early April: Call for proposals launch
 - Late July: Agenda and speakers' announcement
 - Late August/Early September: Registration launch

c. US Cyber Games

Presented by Jessica Gulick, Director of Cyber Sports, Katzcy

URL: <https://www.uscybergames.com/>

- Jessica Gulick recently returned from the first February In-person Camp in Chicago, IL (February 17-19, 2023). The team consists of 30 members. The camp enabled the players to build team comradery. Training took place on Saturday, February 18, 2023 and an in-team scrimmage was held on Sunday, February 19, 2023.
- The Season 2 Pipeline Program provides information, training, and assistance to season 2 athletes that did not make the team but keeps them engaged in and informed about the US Cyber Games.
- The Virtual kick off for Season 3 is on June 1, 2023. There will be several guest speakers and fun announcements about the season.
- The beginners game room will open on June 2, 2023. The Competitive CTF will open on June 5, 2023. Both will be open until June 12, 2023. Participation is free. Registration is open and can be found on the Cyber Game website.
- The US Cyber team will have a presence at RSA at two separate events; 1) the College Day Sandbox and 2) a fundraiser breakfast with Quantum labs.
- The US Cyber Game program has secured athlete intern positions for Black Hat.
- The International Cyber Games will be hosted in San Diego, CA from July 31 – August 4, 2023. The event venue is the Hilton La Jolla Torrey Pines.
- OPM has created a new website for internships (<https://intern.usajobs.gov/>)

VII. Closing Remarks and Next Meeting Reminder

- The next NICE Council Meeting will be March 22, 2023 at 3:30 p.m. ET.