

# NICE Community Coordinating Council

## Meeting Agenda - Speakers

January 25, 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. Industry Co-Chair – Bridgett Paradise, Chief People & Culture Officer, Tenable

- There has been a profusion of layoffs in the high-tech industry. 216,000 tech-industry workers have lost their jobs since the start of the year ranging from recruiters to system engineers.
- Cybersecurity jobs have not been greatly impacted by the layoffs. The demand continues to grow for cybersecurity talent in all sectors. The scarcity of cybersecurity workers puts people in cybersecurity roles in a better position for surviving the layoffs. The work of the cybersecurity workforce cannot be underestimated.

b. Interim Academic Co-Chair – Paul Bingham, Vice President and Dean, College of Information Technology, Governors University

- Chat Generative Pre-Trained Transformer (ChatGPT) is a major discussion topic within the academic arena. Since its debut, the conversation has been about academic integrity and whether people should embrace ChatGPT or be scared of it. Currently in the discovery phase.
- Paul inquired with ChatGPT about the current trends in higher education. The following were reported:
  - Online learning
  - Higher education getting into micro-credentials
  - Competency-based education
  - Personalized learning
  - Focus on experiential learning
  - Emphasis on employability
- Paul recently read an article by Scott Carlson titled, [‘What employers are saying About Higher Ed’](#). In summary, the article notes the need for more partnerships and opportunities for internships.

c. Government Co-Chair – Marian Merritt, Deputy Director of NICE

- Last week Marian attended the [American Association of Community Colleges](#) (AACC) Workforce Development Institute Conference in Indian Wells, CA. Industry and government are deeply invested in what is going on in the Community College sphere.
- Participated on a pre-conference cybersecurity panel discussing topics familiar to the NICE Coordinating Council Community, such as:
  - Where is the curriculum going to come from?
  - Where are we going to get the faculty and how to pay for them?
  - How do we get 2-year graduates into 4-year institutions and ensuring the agreements are in place and the credits translate?
  - How are we getting graduates into the jobs they want?
- The final event was a speed dating event. Each government representative gave a presentation and then dispersed to tables around the room. Individuals could talk to the representatives about their needs and interest from their community colleges.

### III. Standing Items

- a. Report Roundup – Learning from Good Ideas  
*2022 Deloitte-NASCIO Cybersecurity Study*  
 Presented by Eric Sweden, Program Director, Enterprise Architecture & Governance, NASCIO  
 URL: [www.nascio.org/cybersecuritystudy](http://www.nascio.org/cybersecuritystudy)
  - This is the 7<sup>th</sup> biennial survey.
  - The survey has three main themes: 1.) dealing with the talent gap, 2.) embracing the entire state and, 3.) setting a new course.
  - The persisting themes between the 2020 and 2022 reports include inadequate availability and inadequate staffing.
  - The head count for state cybersecurity professionals has not changed. Not seeing an increase in staff and far behind other industries like finance and banking. The investment in personal and training is not commensurate with the risks state government is facing.
  - Are states appealing to the new generation of tech workers? Trying to attract talent through the opportunity to serve. It is an inherent desire to do something meaningful and give back to society.
  - Looking at job stability and retirement as a motivator. The new generation is not motivated by job security and retirement as they don't plan on staying long.
  - 25% of states are offering remote work as a way to attract cybersecurity talent. Remote work has become an expectation. Remote work offers convenience but also find people working longer without breaks. The concern is burn out.
  - Q&A:  
 Q: What are the drivers that make government hiring take so long?  
 A: Older HR policies: Need to update HR processes and policies.
- b. Strategy Stories – New Developments that align to NICE Strategic Plan  
*Competencies and the NCAE-C Careers Preparation National Center (CPNC)*  
 Presented by Zoe Fowler, Norwich University and Vincent Nestler, CSU, San Bernardino

- Two years ago, the CAE Community set about defining what they mean by competency. They are specifically looking at the intersection between education and employment.
  - By competency they mean the ability to complete tasks or tasks within the context of a work role. Students should be able to take the abstract knowledge and skills they are learning within a relatively new academic discipline and use them effectively within the work place.
  - How do we break down an activity to have these elements so that we can establish the activity being done will capture that the student is demonstrating the competency as it relates to a particular work role? Through the following five elements:
    - **Actor:** the person demonstrating the competency-what are their pre-requisites or background?
    - **Behavior:** tasks taken out from the NICE Framework
    - **Context:** how the student is doing the work? This gives life to the tasks and explains how it fits and relates to the work role.
    - **Degree:** quantitative measure-how long did it take to complete the task?
    - **Employability:** catch all qualitative measure: what kind of professional skills did they demonstrate? Problem solving, critical thinking, team work, and other skills are all part of the consideration.
  - Careers Preparation National Center (CPNC) has a variety of initiatives operating in this space all using this shared definition of competency in the five elements.
  - How can competency be built through competitions? Competitions are effective ways for students to develop workplace competency. If students can explicitly define competency statements in relation to competitions that will enable students to articulate them when talking to employers.
  - Starting a program of 'Train the Trainers' to work with educators to mobilize these competencies with their students. They are also developing competency statements. The 'training of trainers' and the development of competency statements go hand in hand to build a bank of competency statements by educators relating to classroom activities.
  - They are developing an E-library of competency statements as an example of good practice for their educators to use.
  - Plan to train educators interested in getting other CAE community schools acclimated in understanding how to use and implement competency in the classroom. The training will include an online information session informing about the ask/need. Additionally, there will be an in-person meeting and follow-up. A small stipend will be provided for the training.
  - Contact Dr. Zoe Fowler if interested: [zfowler@norwich.edu](mailto:zfowler@norwich.edu).
  - Q&A:
    - Q: Is there weighting of importance attached to the five elements?
    - A: No, it depends on the task. Different context lends to different emphasis.
- c. Framework Feature – Applications and Uses of Workforce Framework for Cybersecurity  
*Red Hat Training & NICE Framework Mapping Project*  
 Presented by Lea Fenske and Rob Locke, Red Hat  
 URL: <https://www.redhat.com/en>

- Red Hat is the largest open source software company in the world.
- The Red Hat Academy Program and Red Hat Workforce Development program are helping to train the next generation of open source technologists.
- Red Hat is providing the same training provided to their own commercial customers to schools from K12 through college to train their students and leverage those toward meaningful careers in cybersecurity.
- An opportunity arose to work with NICE and map the Red Hat curriculum to the NICE Framework. The goal is to link Red Hat certifications to the framework so that anyone with a particular Red Hat certification is prepared for a particular job role.
- The Red Hat System Administrator was the first certification chosen to align with the NICE framework. Examinees must perform tasks on a virtual Linux machine. Using the technology, students might configure or even recover a system in order to demonstrate their understanding of the technology.
- Ultimately, correlated to 64 knowledge, 26 of the skill, 4 of the ability, and 45 of the task statements. They will continue to make links as updates are made.

d. Research Review- Driving Research on Effective Practices

*Convergence Education: A Guide to Transdisciplinary STEM Learning and Teaching*

Presented by Emily Kuehn and Louie Lopez, U.S. Department of Defense

URL: [https://www.whitehouse.gov/wp-content/uploads/2022/11/Convergence\\_Public-Report\\_Final.pdf](https://www.whitehouse.gov/wp-content/uploads/2022/11/Convergence_Public-Report_Final.pdf)

- A key element of the report was defining convergence education. The term convergence, as it relates to research, was coined by the National Science Foundation (NSF), to identify research that is driven by compelling and complex socio scientific problems. A transdisciplinary approach where they can create and innovate new solutions.
- This report represents a comprehensive multi-year effort from the Interagency Working Group (IWG) to understand existing research in convergence education and its application in K12 and beyond.
- The report includes a research summary as well as extensive literature citation and a pedagogical framework for implementing convergence education.
- There are challenging and complex integral problems to solve which require student trainees to have exposure on how to handle those complex problems and innovate creative solutions.
- Stakeholder recommendations: education communities are reliant on federal agencies, non-profit and industry and NGO organizations. It requires an intentional, collaborated and coordinated effort in order to best prepare students for the future.
- Q&A:  
 Q: Any chance you are thinking about adding the A to STEAM (STEM + Arts). The Human Factor in convergence education is critical, a slight addition (recognizing the entrenchment of the term STEM). How do we converge the soft skills back into the equation?  
 A: For convergence there is no absence of the need for going beyond STEM. Convergence requires soft skills to be an essential pillar to accomplishing this because they are looking at social issues.

#### IV. Working Group Updates

##### a. Promote Career Discovery

Co-Chair providing update: Roland Varriale II, Argonne National Laboratory; Keith Davis, Koinonia Family Life, Inc

- Continued discussing the Cybersecurity Ambassadors program and incorporated thoughts around corporate social responsibility (CSR).
- A working group member relayed an article by the Business Round Table (BRT) on how to engage CSR teams. The project may be a synergistic effort where corporate social responsibility feeds into an ambassador program.
- Looking at ambassador program criteria. Should there be an application process to be an ambassador or should the group elect ambassadors?
- Site: [Promote Career Discovery Working Group | NIST](#)
- Next meeting: February 15, 2023 at 3:30 p.m. ET

##### b. Transform Learning Process

Co-chairs providing update: Dr. Donna Schaeffer, Marymount University

- Two new project charters approved for the first quarter of 2023.
- Project Group 1: create a resource guide for employers to provide information on free and low-cost training modules and programs, for building a diverse and inclusive cybersecurity workforce.
  - Create a resource page which will include one pagers covering an array of topics as well as scholarship opportunities for underrepresented groups in cybersecurity.
  - The team has submitted to the NICE conference.
  - Proposed a 'Diversity and Inclusion' Community of Interest (COI) group be formed.
- Project Group 2: Look at products and service companies to support efforts to have performance-based assessments to measure cybersecurity competencies.
- [Transform Learning Process Working Group | NIST](#)
- Next meeting: February 7, 2023, at 2:00 p.m. ET

##### c. Modernize Talent Management

Lead providing update: Marian Merritt, National Initiative for Cybersecurity Education

- Kicked off an initiative on 'Writing Effective Job Descriptions for Employers' in order to provide good guidance and tools to recruit successfully.
- The charter is written and on the [website](#).
- Project group is open to anyone who wants to join.
- Site: [Modernize Talent Management Working Group | NIST](#)
- Next meeting: February 16, 2023 at 1:00 p.m. ET

#### V. Community of Interest Updates

##### a. Apprenticeships in Cybersecurity

Debbie McLeod, McLeod Information Systems

- Kimberly Hague from the Department of Labor provided an update on the national sprint. There were over 737 programs by the end of the sprint with over 43,000 registered apprenticeships.

- Keith Clement gave a brief on his comparative analysis. He hopes to have it available by their next meeting on February 10, 2023.
- Presented two different ideas for project focus areas. A survey will be shared asking for input.
- Co-chair Tony Bryan's term is ending. Nominations are open for a new Apprenticeship co-chair.
- Site: [Apprenticeships in Cybersecurity Community of Interest | NIST](#)
- Next Meeting: February 10, 2023, at 11:00 a.m. ET

b. Cybersecurity Skills Competitions

David Zeichick, California State University, Chico

- Heard a speaker from Wicked 6 Cyber Games which is a women's global cyber league. The [Wicked 6 Cyber Games](#) competition is from March 30-31<sup>st</sup>:
- Continuing work on a living list with the most update to date information about cybersecurity competitions. The project aims to make it easier for players to decide which competition to compete in, where the competition is located and how much it costs as well as what cybersecurity skills do those competitions train and test.
- Site: [Cybersecurity Skills Competitions Community of Interest | NIST](#)
- Next Meeting: February 16, 2023, at 3:30 p.m. ET

c. K12 Cybersecurity Education

Co-chairs: Thomas Trevethan, Palo Alto Networks

- January is national mentoring month. Great discussions were had around mentorship programs and mentorship in general. Discovered many high-quality mentorship programs across academia, industry and government.
- A professional development project will run on Fridays at 12:00pm through the month of February. The project focus is on best practices for the delivery of fundamental instruction in the K12 setting.
- Future meetings will include subject matter experts from the K12 COI and other NICE groups, academia, industry and government to help provide valuable insight and best practices on cybersecurity career topics.
- Site: [K12 Cybersecurity Education Community of Interest | NIST](#)
- Next Meeting: February 9, 2023, at 3:30 p.m. ET

d. NICE Framework Users

Karen Wetzal, Manager of the NICE Framework

- A [playbook for workforce frameworks](#) has been added to the website. It is a guide on how other workforces might be interested in using the framework model.
- In addition to the current task, knowledge, and skill (TKS) authoring guide, they are about to release a competency area authoring guide with a work role guide under development as well.
- A QuickStart guide for the NICE framework will be released shortly.
- Plan to discuss alignment to the NICE framework with the user's group. Looking at tracking the NICE Framework use data.

- Site: [NICE Framework Users Group | NIST](#)

## VI. Project Progress Reports

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

Presented by Randy Pestana, Florida International University

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

- Conference theme: ‘Resetting Expectations: Creating Accessible Cybersecurity Career Pathways’
- Received over 170 proposals for the conference. Proposal notifications will be sent at the end of February.
- Early Bird Registration: February 27, 2023 – March 19, 2023; Regular Registration: March 20, 2023 – May 14, 2023; Pre-conference event in Seattle, WA: April 2023 (est.); Late Registration (if applicable): May 15 – May 28, 2023
- Visit <https://niceconference.org/sponsors/> for information about sponsorship opportunities. The opportunities are running out fast.
- The Westin Seattle room block is open: <https://niceconference.org/hotel-travel/>
- The deadline is February 5, 2023 for the 2023 NICE Student Scholarship Proposal applications. For more information please visit: <https://niceconference.org/registration-landing/>
- Sponsorship opportunities are running out. If interested please visit: <https://niceconference.org/sponsors/>
- Connect with us:
  - Website: [www.niceconference.org](http://www.niceconference.org)
  - Email: [info@niceconference.org](mailto: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 2022 Conference materials are accessible to attendees until the end of June. Discussion boards, documents, multiple pre-recorded sessions and attendee photos are available for viewing. For all information about past conferences please visit: <https://www.k12cybersecurityconference.org/pastevents2020>
- Currently looking at venues for the 2023 conference. A venue location will be announced by March 1<sup>st</sup>.
- The 2023 pre-conference workshops will be held at Grand Canyon University.
- Actively recruiting the 2023 planning committee. If interested please email Felicia: [felicia@ikeepSAFE.org](mailto:felicia@ikeepSAFE.org)

## VII. Featured Topic

*Cybersecurity Workforce Initiative Overview*

Presented by Erin White, Senior Director, Corporate initiatives Business Roundtable

<https://www.businessroundtable.org/business-roundtable-launches-new-cybersecurity-workforce-corporate-initiative>

- The Business Roundtable Corporate Initiatives bring together the organization’s membership to make collective progress and apply best practices on ongoing and emerging issues such as worker training, diversity and second chance employment.
- The BRT is launching a new cybersecurity workforce initiative and taking a skills-based approach to Cybersecurity:
  - Create clear entry points by looking at credential or certification requirements.
  - Identify what roles are available for those who don’t have a four-year degree.
  - Expanding employee reskilling or upskilling initiatives
  - Enhance outreach to the US military Veteran and military spouse population for cybersecurity roles.
  - Use the NICE Workforce Framework to inform career pathways for cybersecurity professionals.
- Erin’s email: [ewhite@brt.org](mailto:ewhite@brt.org)

#### *NICE 2022 Accomplishments Infographic*

Presented by Danielle Santos, National Initiative for Cybersecurity Education

<https://www.nist.gov/document/nice-2022-infographicpdf>

- The NICE team appreciates the work and effort contributed by the NICE Coordinating Council Member community.
- The NICE accomplishments page includes past years accomplishments as well: <https://www.nist.gov/itl/applied-cybersecurity/nice/about/accomplishments>
- 12 new materials and resources which include accomplishments such as:
  - Cybersecurity Apprenticeship Finder
  - K12 FAQ for the NICE Framework
  - Cybersecurity Competitions Webpage.
- The Cybersecurity Career Awareness week impacted over one-hundred thousand people with over five hundred commitments and events.
- The NICE Community Coordinating Council project teams had many accomplishments such as the creation of the ‘Cybersecurity Career-Entry Guidance for Employers’ as well as the ‘Cybersecurity Career-Entry Guidance for Job Seekers’.
- Both virtual and in-person events were well attended.
  - The total attendance for NICE Webinars was over: 1,600
  - Federal Cybersecurity Workforce Webinars and Summits had over 1,000 people in attendance.
  - NICE Conference and Expo: 437 attendees
  - K12 Cybersecurity Education Conference: 454 attendees
  - US Cyber Games Draft Day: over 183 attendees
- The NICE LinkedIn account saw an 87% increase in followers.
- The infographic with the NICE accomplishments can be found [here](#).

#### **VIII. Closing Remarks and Next Meeting Reminder**

The next NICE Council Meeting will be **February 22**, at 3:30 p.m. ET.