

**Information Assurance -
Information Security - Digital Forensics
Career Preparation and Opportunity
Workshop
For Guidance Counselors**

**Thursday, September 27, 2007
8:00 am – 3:00 pm**

Summary Report

**Columbia Gateway Park
6740 Alexander Bell Drive**



Organized by: Educational Technology Policy, Research, and Outreach
www.edtechpolicy.org

ETPRO CyberWATCH
IS/IA Cybersecurity and Digital Forensics Career Preparation and
Opportunity Workshop for Guidance Counselors

YEAR 2

Event Summary

A full day workshop occurred on September 27, 2007, held at the JHU Building in Columbia, MD in partnership with MD State Department of Education. The workshop focused on educating 63 counselors on current and future career options for students in Information Assurance, Information Security, Cybersecurity and Digital Forensics, what's expected (i.e., clearances) and how to get there.

The morning included insight from Lynn McNulty, CISSP, Director of Government Affairs of (ISC)², discussing current labor stats, sharing with the audience the need for filling the IT/IA/IS pipeline, current and future career trends, and provided an opportunity to describe the landscape through the eyes of an organization dedicated to certifying IS professionals. Mr. McNulty was followed by Ralph Coppola, Director of Worldwide Education-PTC who again shared the need for increasing the IT pipeline from an engineering opportunity perspective. Davina Pruitt-Mentle then moderated a panel discussion with the primary topic being academic tracks and outside programs in this area. Panel members represented 2 year tracks and certification programs, 4 year programs, MD Internet Crimes Division, and large and small companies (Northrop Grumman, Convergence and Montani). Luncheon keynote was Carroll McGillin, National Initiatives Manager with Cisco Systems' Networking Academy Program who spoke about the IS/IA need in Maryland and opportunities through Cisco Academy Programs. The afternoon sessions included Detective Sgt Robert Smolek who discussed opportunities in the area of digital forensics and Bruce George who spoke on the topic of "Demystifying Clearances Lingo". Davina Pruitt-Mentle ended by sharing what resources are available through the CyberWATCH Center and website.

(ISC)² supplied a keynote speaker and also supplied each participant a variety of materials/resources including:

- Career Guide: Decoding the Information Security Profession
<https://www.isc2.org/download/careerguide05.pdf>
- IDC Analyze the Future: White Paper: 2006 Global Information security Workforce Study <https://www.isc2.org/download/workforcestudy06.pdf>
- (ISC)² 2007 Resource guide for Today's Information Security Professional: Global Edition
<https://www.isc2.org/download/2007ResourceGuideEDUSection.pdf>

- CyberSecurity Awareness Poster https://www.isc2.org/cgi-bin/csam_resources.cgi?page=2&sort=Title&filter=

Northrop Grumman TASC supplied each participant with handouts and pens.

Cisco supplied each participant with pens, handouts and a CD with resources and video clips

Montani supplied a toothbrush with the note, “Passwords are like toothbrushes, they shouldn’t be shared, and you should get a new one regularly.”

Additionally, stipends @\$100.00 were made available through NSF (National Science Foundation) funding for 20 guidance counselors based on 1) first come first serve basis and 2) stipend participants were asked to create recruitment brochures/ fliers based on workshop content that will then be shared with students and parents (and other GC), and to present materials and/or new resources with faculty and/or parents at their school. Stipend awardees were required to attend the stipend briefing. Materials are currently being added to the website for others to view, utilize and share.

Presenter materials and an overview of the event have been archived at: <http://www.edtechpolicy.org/Cyberwatch/gcworkshop.html>

Summary Evaluation

The workshop was uniformly regarded as excellent and essential by both participants and speakers. Summary evaluation and comments are listed below.

Questions	Average Evaluation (0-strongly disagree, 4 – strongly agree)
The workshop’s objectives/goals were clear	3.9
The 1 day length of the workshop was sufficient time to cover the subject matter	3.4
Overall, the workshop speakers were effective	3.9
The workshop materials are useful	3.9
I learned new information in this workshop	3.9
I will use the information that I learned in this workshop in my current position	3.9
I would recommend this workshop to others	3.9
Considering what I learned in the workshop, the cost was reasonable.	4.0
Lynn McNulty “Information Security: A Growth Career” was relevant and useful	3.9

Dr. Ralph K. Coppola, Director of Worldwide Education, PTC was relevant and useful	3.9
The Panel discussion was relevant and useful	3.9
the Working Lunch/Speaker Carroll McGillin, Cisco Academy was relevant and useful	3.9
Robert Smolek Maryland State Police Computer Crimes Unit's afternoon session Computer Crime and Digital Forensics, was relevant and useful	3.9
Clearance Processes and Requirements presented by Bruce George, AACC was relevant and useful	3.9

Comments:

- FABULOUS! Thank you for this invitation
- Outstanding information. I enjoyed the workshop. Speakers were energetic and enjoyable.
- Great! Please send presentation and videos
- This was terrific. I never knew this - was all new to us. It is fascinating. Kids should be told of these careers
- I enjoyed the day!
- Excellent job! Would it be possible to run the C3 conference in the spring, or parts in the spring? Counselors are limited to the amount of time they can leave school and 2 weeks in a row is hard [regarding the workshop held Sept 27th and the C3 conference scheduled the following week Oct 4 & 5th]
- Smaller group discussion may be helpful although enjoyed- some topics redundant - good idea to brainstorm with other counties and share - equality of attendance
- Would like copy of Coppola presentation and Cisco video and presentations
- Great workshop. Lots of great materials-a folder or bag to carry materials would have been great! But not complaining
- Oh my yes I learned a lot of new information! Opening (Lynn) was a good opener because he provided background that I didn't know and brought it down for me/us. Would like to have more specifics - step by step on how we can help get the PTC effort moving forward here in MD. Cisco was great choice at lunch time really like the engineering videos and plan to utilize. Smolek would be a great HS guest speaker. Clearance was a great end the presenters was light and entertaining and made me feel more comfortable about clearances. I realize there's never a "good time" for a counselor meeting, but think about moving this to the 2-3 week in June. That's a slower time for us. I will send this information to my HS teachers to review today's info: pre-engineering; programming; computer maintenance; LAN class; CAD class. Having someone do a background in public school teaching--(Davina) helped to keep the topics relevant to us counselors. I'm afraid I did not understand some of the topics or acronyms. A list might help. Specific examples of abstract topics would improve (a reference sheet in a program). Perhaps a S-L-O-W intro to certification titles. I loved how presenters gave us/we some specific "take aways", things, i.e., "advice to students", JHU accepts transfer from community colleges etc.
- More time great! Great topics loved it
- Video or audio recording (of event) to share the dialogue w/ co-workers

- Suggestions from presenters on how to directly motivate students in this direction would be an extra. Great assembly of professionals! Extremely helpful for my job!
- The panel added depth to what specifically these jobs are about. Having representative from large and small companies helped me understand - having women representatives was wonderful.
- GREAT DAY! Well orchestrated
- Could be improved by expanding (or doing additional career focus like this) to HS students. Wonderful conference. I would recommend my colleagues to attend without hesitation
- The environment was warm and the company was great, longer breaks would help but I didn't want to leave - cold in room only complaint this was a great workshop very informative
- Great workshop--rooms a little cold please provide CD or materials as well as video (CISCO)
- Entire workshop was very useful, relevant and helpful. I appreciate the opportunity to attend
- Could cut down on introduction length since bio provided the diversity and huge depth of experience of speakers was impressive very well designed!! Great location and food - thank you.
- Perhaps end at 2:30 but the working lunch helped - very informative. A list of the speakers (or others) and check off of if they could speak and on what topic would be helpful. Having a snapshot of each persons PPT was helpful but please provide the real thing.
- Excellent conference. Could build in time for small group reflection - each speaker in a small group time then to take strategies back to schools, teachers, students and parents I am in AWE at the caliber of presenters at this workshop today. I would love to have copies of the PPT or place to find them or DVD. My goal would be to effectively share what I have learned today. My colleagues in Montgomery and Baltimore City would appreciate this too....maybe they were invited? They missed out you need to repeat or share across the state
- I really like to take notes and appreciated speakers PPT copies Every speaker and every topic was exceptional and appropriate. I would include the tech ed departments resource teachers. Thank you for providing this workshop what wonderful speakers! Interesting! and informative
- Excellent workshop!
- More time for the panel discussion but I have a clearer idea of what they do and programs great job for organizing this EXCELLENT!!!
- All was wonderful this was great!!!

Resources and Speaker Materials can be found at:
<http://www.edtechpolicy.org/nsfcyberwatch.html>

Recruiting Documentation



Attention

School Counselors
You are invited to participate in a
special workshop sponsored by
the



National Science Foundation

Information Assurance/Information Security/Digital Forensics Career Preparation and Opportunity Workshop

Future Job Titles

- Info Steward
- Outsourcing Manager
- Mobile Application Developer

When: Thursday, September 27, 2007

Time: 8:45 am-3:00 pm **Cost:** none

Where: JHU Gateway Building - Room 218/219

Deadline for Registration: September 19, 2007 - [Online Form](#)
(you must provide your transportation-refreshments and lunch will be served)

Note: This program is limited to 50 participants on a first-come, first-served basis.

Clearances

- Polygraph
- Secret
- Top Secret
- SCI

School counselors are critical in the career choices of students. This 1 day workshop will introduce counselors to IS/IA, Cybersecurity and Digital Forensics career opportunities, and choices within these categories, as well as, the multiple pathways to enter the workforce in these areas. Industry employers will speak to participants about career opportunities, student internships, externships and other related opportunities.

School counselors will learn about current and future career trends in IS/IA, receive updates and current promotional materials for distribution to interested students and parents, and discover how to use the CyberWATCH Regional Center Web site to find answers to questions from parents, students, and other educators. Each counselor will also receive a CD of course material, and handouts.

20 stipends @\$100.00 are available through NSF (National Science Foundation) funding and will be arranged based on 1) first come first serve basis and 2) stipend participants will be asked to create recruitment brochures/ flyers based on workshop content that can be shared with students and parents. Stipend awardees must attend the 3:00 - 3:30 meeting.

Defense Careers

- Counterintelligence
- Linguists
- CISA, CISSP, SANS
- Database Analysts & Administrators
- Digital Forensics
- Forensics Investigator
- Systems Engineer
- Graphics Specialists
- Risk Management
- Network Security

Tentative Speakers:

- AACC JHU PGCC UMBC
- NSA
- Northrop Grumman
- Maryland Internet Crimes Against Children Task Force
- Montani Solutions

For More Information:

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(NSF PI/Coordinator)
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(MSDE School Counseling)
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The Goals of the School Counselors Workshop are to:

- Increase counselor awareness of the workforce needs of the United States in IS/IA and related fields (digital forensics, homeland security, network security, systems administrator, cybersecurity) and requirements (clearances) including 2 and 4 year and certification tracks.
- Increase the knowledge of counselors about the Regional CyberWatch Center and its benefits to students and the future technology workforce.
- Share the connection between the CyberWATCH program and post-secondary success at partnering colleges and universities.

The Information Assurance/Information Security/Digital Forensics Career Preparation and Opportunity Workshop Tentative Agenda

8:45 AM	Check in
8:50 – 9:00 AM	Welcome
9:00 - 9:30 AM	Background/Need: Statistics from the Most Recent Intelligence Careers/Global IS Workforce Study (ISC) ² <i>Lynn McNulty</i> <i>"Information Security: A Growth Career"</i>
9:30 - 10:30 AM	Opening Remarks <i>Dr. Ralph K. Coppola</i> , Director of Worldwide Education, PTC PTC-MIT STEM Pipeline Action Committee
10:30 -10:40 AM	BREAK
10:40- NOON	Panel Discussion & Open Forum <ul style="list-style-type: none">• Two Year Pathway/Certificate Programs and Options• Four Year Track Programs Panel Members: <i>Amera Bilal: UMBC/CWIT</i> , <i>John Baker: JHU</i> , <i>Dahla Wortman: Lockheed Martin</i> , <i>Linda Miller, Northrop Grumman</i> , <i>Francis Edwards: Montani Solutions LLC.</i> , <i>Sally Sullivan: PGCC/Computer Information Systems</i>
12:00-1:15 PM	Working Lunch/Speaker <i>Carroll McGillin</i> , Cisco Academy
1:15 - 2:00 PM	Overview of Computer Crime and Digital Forensics, <i>Robert Smolek</i> , Maryland State Police Computer Crimes Unit
2:00 -2:10 PM	BREAK
2:10- 2:45 PM	Clearance Processes and Requirements: <i>Bruce George</i> , AACC
2:45 -3:00 PM	CyberWATCH Regional Center Resources
3:00- 3:30 PM	Briefing for Stipend Participants

Directions on Next Page

**JHU Columbia Center
Columbia Gateway Park
6740 Alexander Bell Drive
Columbia, Maryland 21046
(410) 516 9700**

From Baltimore

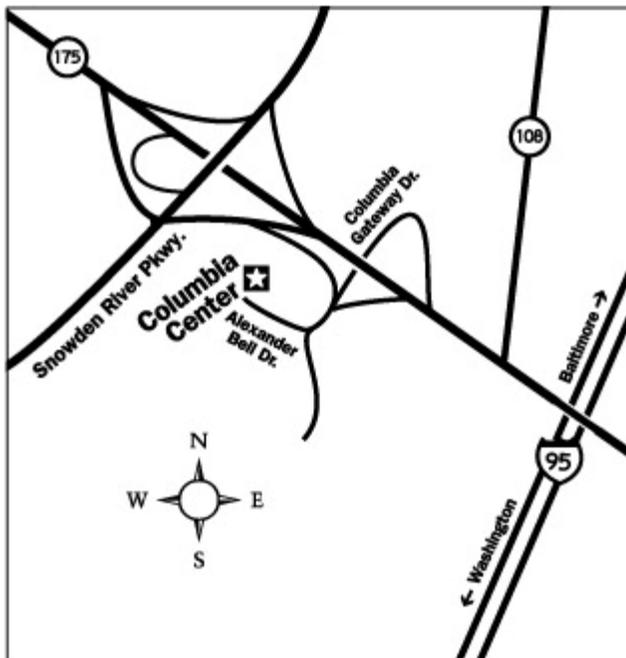
Take I-695 to exit 11 (I-95 South). Go south on I-95 to MD 175 West (Columbia). Follow MD 175 .8 miles through one traffic light to Gateway Drive on the right. Take Gateway Drive .4 miles; turn right onto Alexander Bell Drive. Go .3 miles to 6740 Alexander Bell Drive (the last building).

From Washington

Take I-495 to exit 27 (I-95 North). Go north on I-95 to MD 175 West (Columbia). Follow MD 175 1.5 miles through three traffic lights to Gateway Drive on the right. Take Gateway Drive .4 miles; turn right onto Alexander Bell Drive. Go .3 miles to 6740 Alexander Bell Drive (the last building).

From Route 29

From Route 29, exit onto MD 175 East (toward Jessup) and follow MD 175 for approximately 2.7 miles to the Gateway Drive/Snowden Parkway Exit. Stay in the middle lane of the exit ramp and follow the signs for Columbia Gateway (you will merge to the right after you cross the intersection with the first traffic light.) Continue in the right lane and turn right on Alexander Bell Drive at the next traffic light. Go .3 miles to 6740 Alexander Bell Drive (the last building).



Parking

Ample free parking is available.