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University of Maryland sparks interest in cybersecurity fields for girls by Staff writer

Investigators cracked the case in a major identity theft incident that stripped a boy of his college savings and left him penniless — at least that was the scenario presented at a University of Maryland-led summit for middle-school girls to gain interest in and learn about potential careers in cybersecurity.

About 350 girls from Prince George's County and around the state filled Riggs Alumni Center at the University of Maryland, College Park, on Nov. 14 to dive into group exercises on cybersecurity and identity theft led by female experts in the field from various high-profile organizations such as Lockheed Martin, Boeing, the National Security Agency and Science Applications International Corp.

"We just completed a unit on cyberbullying and Internet safety, so this is really timely for the students. I like that this gives a career slant so there is a focus on what's available in this field," said Susan Creamer, a technology teacher at Buck Lodge Middle School in Adelphi.

Nicholas Orem Middle School in Hyattsville, William Wirt Middle School in Riverdale and Buck Lodge were three Prince George's schools that brought groups of students to the daylong summit. The schools were chosen by event co-sponsor CyberWatch, an advanced technology education center headquartered at Prince George's Community College that previously worked with the selected schools on technology-focused projects.

Groups rotated between tables and each had their own piece of the cybersecurity puzzle. Topics covered included logic, lock-picking, computer parts, cryptography and stenography. A summit focusing on similar topics is planned to be held at UM every fall, said Michael Cukier, a University of Maryland associate director for education at the Maryland Cybersecurity Center.

Much of the day was spent teaching students the importance of creating strong passwords for email accounts and online websites so that personal information cannot be hacked.

"What you guys put on Facebook is public information. If you're posting about your dog Max all the time, I'm going to think "Max" or "Max123" is your password," said Lisa Foreman, founder and CEO of the Women's Society of Cyberjutsu, a McLean, Va.-based network of cybersecurity and IT professionals to promote women's involvement in such fields.

Cukier said the event was held in part to promote the university's first undergraduate honors program in cybersecurity, opening in fall 2013, called Advanced Cybersecurity Experience for Students, which was funded through a matching gift from the Northrop Grumman Foundation. He said unlike other cybersecurity programs that promote individual competition against classmates, the program will pair students together for team-building projects and show that the industry can be enjoyable and beneficial for others to help retain students in the program.

He said retaining female students in such fields has been difficult nationally due to programs being set up for competitive, individual work and not collaborative group work.

"You really need a diverse group of people to come up with proper solutions," said Cukier, as he explained why more girls need to go into science- and math-related fields. "Today, you still see a lot of white guys in front of computers that are asocial. There needs to be more events like this where there's team-building. There needs to be a sense that this is for the good of the community."

Buck Lodge eighth-grade student Susan Calderon, 13, of Langley Park said she can use what she is learning about cybersecurity in her future career. She said she wants to go into psychology and could apply knowledge of cyberbullying and identity theft in child psychology cases.

"I think that this is really fascinating, to be able to see inside of something, and it's good to find hidden things," she said. "Some people think that women can't do things, but they really can because here we're discovering hidden things."

Riverdale resident Jordan White, 13, a student at William Wirt Middle School, said she is looking into becoming a scientist and said what she has learned about technology in the summit can help her in many scientific fields.

"It's interesting how different types of technologies can protect different types of areas," she said. "If someone is looking into this field, this should help them know what to do and how to handle different things."

djgross@gazette.net

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