

Increasing Diversity in the Cybersecurity Workforce

Applying The Cybersecurity Workforce Alliance (CWA)
Virtual-Internship Model



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Need for Cybersecurity Talent

- Cybercrime will cost the industry \$6 trillion annually by 2021*
- 3.5 million unfilled cybersecurity positions globally by 2021*
- The cybersecurity unemployment rate was 0% in 2016
- Demand for cybersecurity talent would rise to 6 million jobs (total jobs, filled and unfilled) globally by 2019
- Women hold only 11% of cybersecurity positions globally

*Source: CybersecurityVentures 2017

A few design questions...

1. How might we increase the awareness and capabilities of our students to enter and pursue a career in cybersecurity?

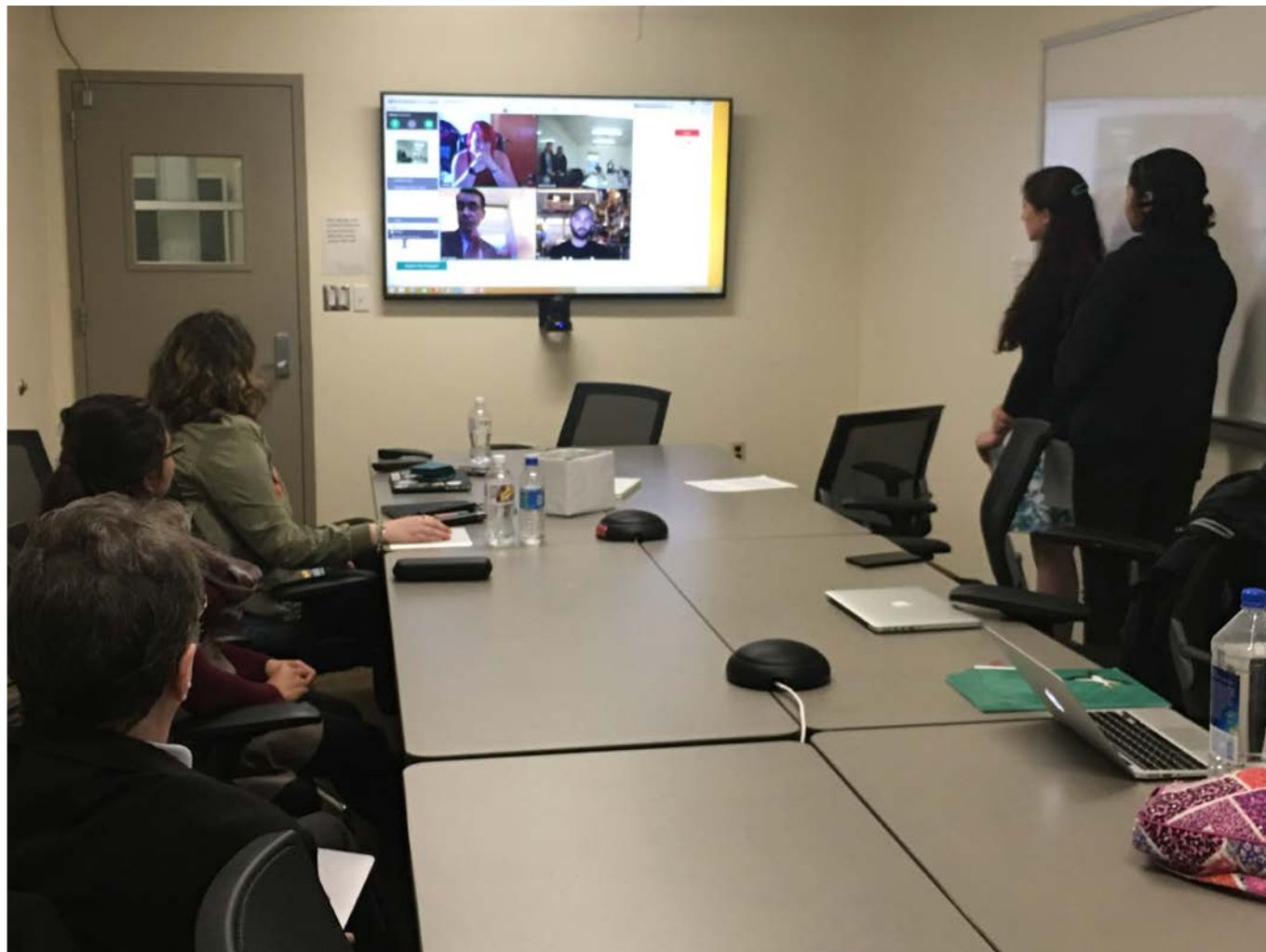
1. How might we attract more women into the cybersecurity profession?

Prototyping - CWA Virtual Internship Model

- Industry-led “workforce readiness” Applied Learning
- Recruit students from all majors
- Invite industry professionals to serve as mentors
- Use real world cases to learn how to analyze and solve a cyber/risk problem
- Student interaction with the professionals on a weekly basis
- Role-based approach and diverse background encourage learning from multiple perspectives
- Self-directed, mentor and peer-supported learning







Benefits

- Poise and confidence in presenting themselves and their point of view
- Received direct coaching and feedback from professionals throughout the course
- Awareness and inspiration to pursue cybersecurity related career pathways
- Increased connectivity and shared learning among students
- Increased career readiness - ***Interview and workforce ready!***
- For mentors/Employers
 - 13 Week prolonged internship “interview” - **for ANY job role, not just Cyber/Risk**
 - Cut 3-6-months out of on-boarding time and costs from workforce ready candidates





Outcome

- Since Spring 2018, we have conducted 4 sessions of iQ4's "Cybersecurity - The Threat Within"
- We have engaged 19 mentors from the industry
- By December, we will have over 50 students completing this program
- Diversity: 41 % women students, 20% are non-computer students, we also admitted professionals in other fields
- We have successfully run this class both as a hybrid for local students and an online class for remote students.



Future Plans - Increasing Women In Cyber

Scale number of virtual teams each semester

Embrace all majors - to align with industry demand

Balance teams 50/50 by gender or allow self selection up to 100% female

Metrics - monitor progression via the platform

Track CWA-Alumni into internships and jobs

CWA Alumni Experience: Joy Nuga

- Joy's Foundation: a childhood interest in cybersecurity and the Internet
- Decision to forgo a "brand name" school for a public school education at CUNY
- Spring 2016: "The Threat Within" at John Jay College of Criminal Justice (CUNY)
- End of Virtual Internship -- Beginning of Career in Cybersecurity
- Current Plans and Future Aspirations





Questions?



Interested in the CWA Model?
Contact info@iQ4.com