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BETTER.

Women in Cybersecurity: Finding, Attracting and Cultivating Talent

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How can we bring girls from here ... to ... there ?

The pathway from middle school to a cybersecurity career

And keep them!

A SUCCESS STORY: Emily

Visit from ABC news

Barrier #1 - ENGAGEMENT

Girls don't know about cybersecurity and have never gotten a chance to "try it" - so they don't realize they could enjoy it or that they could be good at it
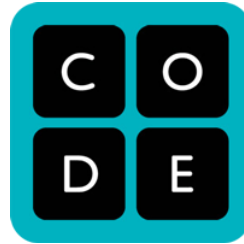
ENGAGEMENT

- catch them before it's too late by building curiosity and excitement about cybersecurity

Middle school

- Code.Org
  - in school classes and the Hour of Code campaign

- Gen Cyber summer camps
  - some middle school and girls only camps

- After school Clubs
  - Girls Who Code, Girl Scouts, CyberPatriot

DISCOVERED TALENT EVEN IN STUDENTS WHO DID NOT KNOW THEY HAD ANY.

"Before I recruited girls to be a part of this wonderful program I struggled to get girls to realize they could be computer scientists. I had girls actually saying they were too stupid to do this until I said, **"Just try it".**

Some of my girls found out they were good at puzzles, some found out they liked programming. I now have girls asking our counselor about computer science degrees at our local community college."

Barrier #2 - MOTIVATION

Girls are less motivated by:

- Money - they like it but don't gravitate to careers because of it.

- Job security - few teenagers are able to process the idea that they won't be able to find jobs doing the work they love.

"I want to make sure the bad guys get caught...and that the innocent people don't get caught up in the bad guy's schemes" - college student at WiCys conference

Girls are very motivated by:

- **Making a difference in the world**

Barrier #3 - RECOGNITION

- Everyone wants to be a winner - trophies and prizes are fun!

- But if you never see girls getting a trophy or their picture in the paper, why would you imagine it could be you?

Provide ways for girls to shine and to realize they are good at this. Make the successes <u>very visible</u> with prizes, a reception and their picture in the paper!

Barrier #4 - CONNECTION

Don't see any women role models and don't understand the career track

Solutions:

- Speak to a class

- Help with College selection

- Buddy up at conferences

- Facilitate Internships

- Advise on industry certifications

#5a – Maintain the CONNECTION through college

Keep the engagement going!

- Create a school (or community club) around cybersecurity.

- Facilitate local cybersecurity meetups.

- Facilitate resume writing clinics and "interview how-tos".

- Host career fairs with a focus on cybersecurity professions.

- Create internships & apprenticeships opportunities with in your organization.

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#5b – Grow the connection through training and events

- Provide scholarship opportunities to attend leadership conferences.

- Provide speaker's training & opportunities

- Provide scholarships/funding for:
  - Key technical training:
  - Bootcamps & Cyber competitions
  - Technical conferences

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#6 - Create Career Change Opportunities

Internal

- Mentoring

- Training opportunities

- Shadow & Stretch assignments

- Job sharing & rotation

External

- SANS Women's Immersion Academy

- Cisco Network Academy

- Mini/Nano degrees

- Industry certifications

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#7 - Value the Entire Life Experience!

"Returning to a career after extended time off? Welcome back — and welcome to XYZ Org. Whether you took time off for your family, military service, education, health, or a personal passion project, we value your entire life experience."

- Set aside a small number of job reqs for "returnships" (career re-entry) opportunities.
  - paid internships (often 16 weeks)
  - A great way to tackle well-defined tasks/small programs

- Help end bias about returning to work careers.
  - "They won't be as focused."
  - "Their skills will be rusty."
  - "I am taking a risk on them."

- Share your experiences about returning workers with others.

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#8 Address the "road hazards" to retention

- Give them a strong start:
  - Keep them engaged
  - Provide strong mentorship
  - Communicate frequently

- Understand and own culture issues:
  - TRUST
  - Unconscious bias
  - Equality all around (pay, expectations, responsibilities)

- Adopt and embrace work/life balance:
  - flexible hours
  - flexible work locations

- Growth and promotion limitations:
  - Provide training opportunities
  - Encourage advanced degrees
  - Highlight women candidates
  - Provide sponsorship for career advancement

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9 Create and encourage "Community Experience"

Internal

- Understand and explore opportunities for I&C groups.

- Encourage BoF meet-ups on key topics.

- Encourage participation in internal events and training.

- Use the community to help build the pipeline.

External

- Anita Borg

- Women in Cybersecurity (WiCys)

- Women in Security and Privacy

- RSA Inclusion and Diversity

- Others

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Call To Action

Where will YOU engage and apply?

Two ways to take action in next two weeks

Bring it back home

- Find a local cyber club and offer to speak or lead a cyber activity

- Spread the word to girls in your state about playing in cyber competitions

- Sponsor prizes and/or a reception to recognize winning girls in your state

Connect inside your organization

- Investigate if there are any I&C groups focused on technology or security.

- Start a women in cybersecurity community within your org or company.

Q & A Any questions?

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Reference Materials

References & Resources

- Code.org and Hour of Code - https://code.org/

- Gen Cyber Camps - https://www.gen-cyber.com/

- Girls Go CyberStart competition- https://girlsgocyberstart.org/

- CyberPatriot National Youth Cyber Education clubs - https://www.uscyberpatriot.org/

- Girl Scouts Cybersecurity Badge - https://www.girlscoutshop.com/Junior-Cybersecurity-Badge-Requirement-Pamphlet

- Girls Who Code - https://girlswhocode.com/

- CompTIA HerStory - http://maketechherstory.comptia.org/

- Aspire IT - https://www.aspirations.org/aspireit

- Cyber FastTrack competition for college students - https://cyber-fasttrack.org

References & Resources

- WiCys Student Chapters - https://www.wicys.org/student-chapters

- IEEE Women in Engineer Leadership Conference - http://ieee-wie-ilc.org/

- Girls in Tech (Catalyst Conference, Boot camps and more) - https://girlsintech.org/

- National Association of Female Executives (NAFE) - https://www.nafe.com/

- Forbes Women's Summit - https://www.forbes.com/forbes-live/event/2019-womens-summit/

- SANS Women's Immersion Academy - https://www.sans.org/cybertalent/cybersecurity-career/womens-academy

- RSA Inclusion and Diversity focus - https://www.rsaconference.com/press/95/rsa-conference-unveils-new-diversity-and-inclusion

- 2017Global Information Workforce Study - https://iamcybersafe.org/gisws/

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