CONVERSATION 1 - BLACK GIRLS IN COMPUTING (K-12)

Tuesday, February 11 at 1:00 p.m. MST

FACILITATORS: Jannie Fernandez & Dr. JeffriAnne Wilder

PANELISTS: TJ Alladin, Ewurabena Ashun, Deon Gordon, Deborah Kariuki, Taylor Richardson
AGENDA

1:00  Welcome (Jannie Fernandez)
1:05  Overview of Series (Dr. JeffriAnne Wilder)
1:15  Panel
1:40  Q & A
1:55  Wrap-Up & Closing
WELCOME!
ABOUT THIS SERIES

• The Color of Our Future conversation series will examine important questions related to broadening the participation of black women and girls in computing.

• A three-part series (K-12; post-secondary; industry) will explore key issues and solutions to advancing and enhancing the experiences of black women and girls across the tech ecosystem.
K-12 COMPUTING EDUCATION

Women of Color in Computing Data Brief (Kapor Center, 2018)

• Nearly half of female students in K-12 education are girls of color (U.S. Department of Education, 2013) and by 2060, the census projects that women of color will comprise the majority of the female population in the United States (Census, 2014, Catalyst, 2017; Figure 2).

• Just 4% of all high school students taking AP Computer Science in 2017 were Latinx girls, 2% were Black girls, and <1% were Native American/Alaskan Native girls.

• Solving this problem starts in K-12!
Boys receive more encouragement than girls from...

- Teachers: 1.5x as likely to be told by teachers they would be good at CS
- Parents: 1.7x as likely to be told by parents they would be good at CS
- Media: nearly 2x as likely to often see someone like them doing CS in the media

Girls are less aware of ways to learn CS on the Internet and in the community, and more likely to have learned CS and to learn on their own.
THE COLOR OF OUR FUTURE

• Computing pathways can bridge the economic, social, political, and cultural gap for women and girls of color now and in the future.

• **NCWIT organizational strategy** that anchors NCWIT programs, initiatives, and research-based resources focused on broadening the meaningful participation of underrepresented women and girls of color (black, Latinx, and Native American) to positively impact the future of computing.
TODAY’S PANELISTS

**TJ Alladin**
- NCWIT Community Engagement Manager

**Ewurabena Ashun**
- Curriculum Specialist, Black Girls Code

**Deon Gordon**
- President, TechBirmingham

**Deborah Kariuki**
- Faculty, STEM Education UMBC

**Taylor Richardson** (AKA Astronaut Starbright)
- Student, Activist, Advocate, Philanthropist
QUESTION 1:

• As a way of introduction, please share with us the specific work that you’re doing to broaden the participation of black girls in tech.
QUESTION 2:

• In the K-12 space, how can we make the learning environment (formal and informal) more conducive to enabling more black girls to learn--and embrace--the CS foundations?
  • How does this look in the PreK-5 space compared to middle and high school environments?
QUESTION 3:

• What role have you seen encouragement play in getting more black girls involved in computing?
• What advice would you give to black girls interested in pursuing a career in computing? Is it different advice than you would give to black boys?
QUESTION 4:

- We’ve heard the great things you have done for bringing more black girls into tech. What can the rest of us do to more actively educate and introduce girls into more computing pathways?
QUESTION 5:

- As a community (of women and girls of color and allies), how can we better leverage our collective work to strengthen the meaningful and influential participation of underrepresented girls of color in tech?
Consider intersectionality in all that you do by learning more about the following NCWIT programs and resources:

- Modern Figures Podcast
- TECHNOLOchicas
- NCWIT Messaging Toolkit for Members
- Bridging the Encouragement Gap in Computing
- Guide to Inclusive Computer Science Education
- Colorism Bias in the Tech Industry
- Collaborating to Grow the Pathways of Native Americans in STEM: White Paper
- Black Women & Girls in Computing Roundtable: Executive Brief
Q & A SESSION
THANK YOU!

Join us for Conversation 2: Black Women in Higher Education on Thursday, February 27 at 1:00 p.m. MST
SUPPLEMENTARY INFO
## The Aspirations in Computing Journey

### AiC Awards: Identifying and Honoring Technical Women and Their Influencers

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<tr>
<th>K-12</th>
<th>HIGH SCHOOL</th>
<th>COLLEGE</th>
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<tr>
<td>NCWIT AspireIT connects high school and college women with K-12 girls to teach programming and computational thinking fundamentals in fun, creative environments.</td>
<td>The <strong>NCWIT Award for Aspirations in Computing</strong> 9th-12th grade women who are active and interested in computing and encourages them to pursue their passions.</td>
<td>The <strong>NCWIT Aspirations in Computing Educator Award</strong> publicly celebrates formal and informal educators who encourage 9th-12th grade women’s interest and ability in computing.</td>
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<td><img src="image" alt="NCWIT AspireIT" /></td>
<td><img src="image" alt="Award for Aspirations in Computing" /></td>
<td><img src="image" alt="Aspirations in Computing Educator Award" /></td>
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<td>The high school awards include both national and local recognition in 75 regions.</td>
<td><img src="image" alt="Aspirations in Computing Educator Award" /></td>
<td><img src="image" alt="National Award" /></td>
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### AiC Community: Encouraging Persistence Into Computing Education and Careers

**9th Grade through College+**
Because of this Award I am....

“Open to new opportunities because I now know that I am very good at computing.”
ASPIRATIONS COMMUNITY GROWING RAPIDLY

• In 2007 – 15 members
• By 2012 – 1,505 members
• Today, there are over 15,000 members from every state and 76 regional affiliates
• 77% of those who enter in high school who have moved on to college reported having a Computing or Engineering major or minor

“This has to be the best program I have seen to recognize students... NCWIT goes very far in helping [young women] see the benefits of a tech career.”

~ Educator
Since 2013, NCWIT has gifted more than $575,000 to

235 computing programs, providing an estimated

200,000 instruction hours to nearly

5,300 K-12 girls in 36 states
Deborah Kariuki, UMBC

https://www.umbc.edu/

Currently I am a Faculty at UMBC- University of Maryland in Baltimore City. I have been honored to create a Computer Science Education masters program that is going to prepare effective and leader teachers to teach computer science to the next generation starting Fall 2020 semester. The computer science content area is the first and only program of its kind in Maryland. This content area was created in response to the Maryland state mandate for a computer science teacher to be in place at 100% of Maryland high schools by 2021.
Deborah Kariuki, UMBC

- **Equity in Computer Science Evangelist** I accomplish this by
- **Sponsoring WiCyS- Women in Cybersecurity at UMBC**
- **SheLeadsTeach Ambassador**
- **Manage the WomenInComputingWIC facebook webpage**
- **Run the PRAXIS certification program for Maryland Teachers**
- **Give presentations to students, parents and teachers on computer science**
- **Involved in so many organization that promote K-12 CS education** CSTA, SIGCSE, ITSE, CodeorgFacilitator, codeintheschools, AP Advocate
The future is hers.

www.blackgirlscode.com  @blackgirlscode
Ewurabena Ashun works in the Education Department of Black Girls CODE. Serving as the Curriculum Specialist, her focus is on impact. What she achieves in her role is curating the best way to expose and develop our Tech Divas as Future Tech Bosses in STEM - primarily programming and engineering. Ewurabena is also the Co-Founder & COO of the Tender Mercy Care Foundation, which targets and supports children in Ghana with the basic needs of life, as well as exposes them to the fundamentals of STEM.
Black Girls CODE works to eliminate the digital divide by introducing young girls of color to the technology industry through exposure to skill building programs, mentors, and leadership opportunities.

@blackgirlscode  
blackgirlscode.com
Our goal is to train 1 million girls of color to code by the year 2040.