2019 NCWIT SUMMIT

Each year, the NCWIT Summit on Women and IT: where conversations lead to change brings together hundreds of men and women change leaders from education, entrepreneurship, corporations, and social science. This one-of-a-kind opportunity represents the world’s largest convening of individuals and organizations from across disciplines and industries who are focused on significantly improving diversity and inclusion in computing.

This year, in the first Plenary, NCWIT CEO and Co-founder Lucy Sanders will unveil a new messaging platform, developed with the advertising company Ogilvy. The message, “The idea you don’t have is the voice you haven’t heard,” and the tagline “Inclusion changes what’s possible,” are confident expressions of what we know is true: Diversity and inclusion enhance outcomes in technological innovation for businesses and educational institutions of all sizes.

NCWIT members will be encouraged and challenged to take this message, make it their own, and spread the word far and wide:

- A **Messaging Toolkit** (available through n cwit.org/listen) provides members with the guidance and assets needed to share how they are building inclusive cultures, from the classroom to the boardroom. Virtual badges, email signature flair, posters, and social media copy with accompanying graphics are all available to download for free.

- **T-shirts** are the official 2019 NCWIT swag, making all those who wear them mini-marketers of such a powerful message.

- **Postcards** represent a new Change Leader Challenge—asking Summit attendees to address a postcard to one or more of their peers, encouraging the end recipient to utilize the Messaging Toolkit and share how they are changing what’s possible.
Also, the NCWIT Summit mobile app is back! Users can get detailed information about events and speakers, receive instant updates, connect and network with attendees, and share their impressions through pictures and messages. (To get it, download the Attendify app from the Apple App store or the Google Play store; then, search for “NCWIT Summit” within the Attendify app. Links are available at ncwit.org/summit/mobile.)

We are especially appreciative of our 2019 NCWIT Summit Community Reception Sponsor Amazon. We would also like to give a huge thanks to our 2019 NCWIT Summit Media Partner Facebook. And, we are incredibly grateful for 2019 NCWIT Summit Sponsors Anchor Point Foundation, Association for Computing Machinery (ACM), Chevron, FedEx, PNC, and Royal Bank of Canada Capital Markets. And, we appreciate Catalyte and EY for their additional support.

ncwit.org/summit

2019 NCWIT AWARD CELEBRATIONS

Nearly 40 exemplary representatives of the NCWIT community will be honored on the Summit stage and within NCWIT Alliance meetings for their change leadership and mentorship in education, highly innovative technical projects, and lifetime contributions to technological innovation. Learn about the 2019 recipients of the Academic Alliance Seed Fund, the Collegiate Award, the Harrold and Notkin Research and Graduate Mentoring Award, the National Aspirations in Computing (AiC) Educator Award, the Extension Services Transformation (NEXT) Awards, the Pioneer in Tech Award, and the Undergraduate Research Mentoring Award in the printed Summit program or online.

The Academic Alliance Seed Fund is sponsored by Microsoft Research and other generous supporters; the Collegiate Award is sponsored by Qualcomm with additional support from Palo Alto Networks; the Harrold and Notkin Research and Graduate Mentoring Award is sponsored by the NCWIT Board of Directors; the National AiC Educator Award is sponsored by AT&T; and, the Undergraduate Research Mentoring Award is sponsored by AT&T.

ncwit.org/awards

NCWIT ON THE ROAD

Special Interest Group on Computer Science Education (SIGCSE)

Between multiple booths, sessions, and a reception, NCWIT once again had a major presence at SIGCSE, the largest computing education conference worldwide:

» NCWIT joined 10 other BPC Alliance organizations in a triple booth to provide information and resources.

» NCWIT EngageCSEdu also set up a booth to spread awareness about its platform for instructors of introductory computer science courses to find and share high quality, engaging materials.

» The NCWIT Academic Alliance hosted a reception, sponsored by Microsoft Research, and invited all faculty members of higher education institutions to attend.

» Additionally, NCWIT Senior Research Scientist Lecia Barker, NCWIT Director of Evaluation & Senior Research Scientist Wendy DuBow, NCWIT Social Scientist Christopher Lynny Hovey, and NCWIT Research Scientist & NCWIT EngageCSEdu Director Beth Quinn presented alongside member representatives of NCWIT Academic and K-12 Alliances on retaining historically underrepresented students, survey results on why CS faculty adopt new teaching practices, microaggressions, bias, and more.

This February 2019 e-newsletter covered it all: ncwit.org/SeeYouAtSIGCSE19.
FIRST World

NCWIT Aspirations in Computing (AiC) staff traveled not once, but twice, to multi-city FIRST World Championships, the oldest and largest youth robotics program in the world. NCWIT provided meetup opportunities for AiC Community members and their friends to connect with each other, presented sessions for others to learn how to get involved with AiC, and staffed booths to engage with attendees.

And More

The future of computing education was a focus this winter, as NCWIT staff took part in several national and regional events dedicated to expanding access for students at all levels, including:

» the 2019 CSforALL SCRIPT Symposium, where NCWIT Strategic Director of K-12 Initiatives Leslie Aaronson shared ways NCWIT can support other organizations in their efforts to increase inclusivity

» the Future of Education Technology Conference (FETC), where NCWIT K-12 Alliance Manager Jannie Fernandez alongside two Aspirations in Computing Community members shared strategies, tools, and real-life stories about the importance of computing education for everyone

» the Wisconsin School Counselor Association 2019 Conference, where NCWIT C4C Program Director Angela Cleveland and NCWIT C4C Community Manager Julie Gustafson presented a workshop equipping counselors to help students understand what they need to do to prepare for careers in tech

» the Capital Region Celebration of Women in Computing (CAPWIC), where NCWIT Research Scientist Gretchen Achenbach offered a workshop on recognizing and responding to unconscious bias

NCWIT was also represented at the Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference by NCWIT Lead External Evaluator Elizabeth Litzler, who spoke about aligning research methods with social justice values, and NCWIT Research Scientist Gretchen Achenbach, who discussed the impact of bias in academic settings.

Follow #NCWITontheroad on Twitter to keep up with where NCWIT spreads the good word.

NCWIT COUNSELORS FOR COMPUTING (C4C) TAKE ON VIRTUAL REALITY (VR) AND WEBINARS

Expressions of Computing VR Design Challenge
In February 2019, the 2018 Expressions of Computing VR Design Challenge recipients were announced! Each recipient’s work will be featured in a future See Yourself in Computing VR Experience campaign designed to promote conversations among school counselors and their students about opportunities in computing education and careers. Learn about the recipients’ artful submissions at ncwit.org/ExpressionsVRChallenge.

Webinar
Computer Science educators across the nation are finding that collaborating with their school counselors yields positive results in directing students to viable education and career opportunities. On January 8, 2019, CS for All Teachers and NCWIT C4C held a webinar to discuss key strategies for creating positive partnerships between counselors and CS educators (ncwit.org/CSEquityWebinar).

The See Yourself in Computing VR Experience is generously supported by Apple and Google. C4C is a project of the NCWIT K-12 Alliance, made possible by The Merck Company Foundation.
NEW NCWIT RESOURCES

» The Ascent of Women-founded Venture-backed Startups in the United States // ncwit.org/startups
This report, sponsored by NCWIT, adds to the relatively limited research studying patterns of women-founded, venture-backed startups. While others have tended to look at topline aggregates of venture deals and funding amounts by the gender composition of founding teams, researchers for this report track “first financings” (initial venture investments), examining first financings by founder gender over time, by industry, and across U.S. metropolitan areas. Outcomes for women-founded companies versus non-women-founded firms are also compared.

» Bridging the Encouragement Gap in Computing // ncwit.org/PracticingEncouragement
There is consensus among researchers that encouragement matters and plays a critical role in engaging more young women and girls in computing. Here are some key highlights from published research studies, and follow-up tips on practicing encouragement.

» Colorism Bias in the Tech Industry // ncwit.org/Colorism
Achieving equity in the tech industry must be intersectional: race, class, gender, sexuality, and other key factors of identity shape experiences differently; and understanding those differences is critical to promoting diversity, inclusion, and change for women, girls, and other underrepresented groups in IT.

Over the past decade, many institutions and organizations are becoming more aware of how unconscious and overt bias leads to uneven access, recruitment, and retention of individuals in computing along race and gender lines. Building on this awareness, it is important to call attention to a lesser known, but equally challenging, form of bias that can be an added barrier for women and girls of color to achieving equity in computing: color bias or “colorism.”

» Communicating Research-based Interventions to Change Agents // ncwit.org/Communicating
This guide was created to support the use of evidence-based interventions by change leaders. It can help researchers to avoid jargon and communicate effectively. This resource is intended to help readers design an overall communication strategy. Steps include identifying goals and philosophy, deciding whether to translate at all, carefully analyzing specific audiences, and based on these, developing a user-centered communication strategy.

» Inclusive Environmental Assessment // ncwit.org/InclusiveEnvironment
The design and décor of the physical spaces where people work contain signals about who does and who does not belong there. When we view these spaces through a diversity of perspectives, we can reveal features that signal exclusion to many people in subtle or overt ways — as well as opportunities where we can intentionally signal inclusion for a broad range of people. This resource was developed to help identify both inclusive and exclusive characteristics of the physical environment (workplace, office, campus department, etc.) in order to make changes that increase a sense of belongingness to a broader range of people.

» Modern Figures Podcast // http://modernfigurespodcast.com/
This podcast guest stars Black women in computing who share their stories and perspectives on technical, societal, and personal topics. Geared toward women of color in STEM, especially high school and college students, the podcast also highlights the interestingly relatable, pivotal moments along their journey in computing.

This podcast is produced in collaboration with the Institute for African-American Mentoring in Computing Sciences (iAAMCS), a national resource for all African-American computer science students and faculty.
» **Organize: Broadening Participation in Computing State Summit Toolkit // ncwit.org/organize**

Advancing K-16 computing education in a state is a complex and collaborative endeavor. Computing education state summits are an important part of this process and can help to develop and advance a state’s strategy both for expanding computing education access and for broadening participation in computing (BPC). In particular, summits can promote equity and democratize change efforts by giving voice to all stakeholders in a collaborative and action-oriented environment.

This toolkit will help you define the purpose, create structure, and plan the logistics for your own summit, and help engage in follow-up efforts post-summit. It also provides practical resources that communicate the importance of BPC efforts and strategies that change leaders can apply to their efforts.

*This toolkit was created through a partnership between the Expanding Computing Education Pathways (ECEP) Alliance and NCWIT, with both organizations focused on BPC as NSF-funded organizations.*

» **Performance Evaluation Toolkit // ncwit.org/PerformanceEval-Toolkit**

Research shows that even individuals who consider themselves committed to equality still engage in unconscious forms of bias and discrimination that negatively affect the evaluations and experiences of women and other underrepresented groups at work. Biased performance evaluation undermines the meritocratic goals of talent management systems: to identify, develop, and retain talent, improve employee effectiveness, and build strong and innovative teams. These resources give you the tools to identify and avoid bias in performance evaluations.

» **Task Assignment Toolkit // ncwit.org/TaskAssignment-Toolkit**

Task assignment is a key area where bias emerges, exacerbating workplace inequity. Research shows that women and members of other underrepresented groups are more often channeled into “execution” or project management roles and are less likely to receive high-value, high-visibility, or stretch assignments (Hewlett et al., 2008; 2014).

As a result, underrepresented employees can have fewer opportunities to creatively contribute, learn, innovate, and shine. These patterns can also lead to low job satisfaction and higher turnover rates for these employees. These resources will help supervisors root out bias and reduce this key barrier to fostering diverse, inclusive, and thriving teams.

» **TECHNOLOchicas 3.0 Posters // ncwit.org/technolochicas3posterset**

Highlight the stories of TECHNOLOchicas, Latinas from diverse backgrounds and environments who are in technology fields and recognize the power of innovation to change the world.

» **You Can Actively Recruit a Diverse Range of Girls into High School Computing Classes: A Workbook for High School Teachers // ncwit.org/HSTeacherWorkbook**

This workbook will help educators and influencers understand the research-based reasons why a diverse range of girls are less likely to take computing courses in high school. High school teachers are provided with actionable recommendations for creating recruiting and outreach interventions that work.
NCWIT IN THE NEWS

NCWIT Participates in Quora Sessions

NCWIT CEO and Co-founder Lucy Sanders participated in Quora Sessions regarding:

» the current state of affairs for girls and women in computing: the statistics
» the importance of gender diversity in computing
» practical strategies for reducing implicit bias
» enlisting the support of male or majority-group allies
» making computing education engaging and relevant for all

Check out the candid, engaging answers from Lucy Sanders, and upvote and share your favorites: ncwit.org/quora! Key takeaways have been picked up and published by Apple News, Forbes, Inc., and more.

NCWIT Extension Services in the Spotlight

For the first time, Extension Services, an NCWIT program that addresses this severe gender imbalance in undergraduate computing, has been featured in Forbes and the Colorado NBC News Affiliate 9News. This builds upon publicity from last Fall, when a three-part series contributed by NCWIT Editorial Consultant Angela Galik was published in EdScoop.

ncwit.org/ESnews

NCWIT Contributes to the Media Planet “Women in Computing Campaign”

The Media Planet “Women in Computing” campaign aims to create a conversation and raise awareness about the importance of having more women pursue careers in the technology and computing industry. NCWIT contributed an editorial (ncwit.org/MediaPlanet-March19) to this campaign, centered on retaining a diverse workforce through explicit and careful attention to intersectionality. The campaign also features many organizations from the NCWIT community: AnitaB, Code.org, Community Research Association (CRA), Computer Science Teachers Association (CSTA), Girls in Tech, Girl Scouts, IEEE, and Iridescent.

NCWIT and Wogrammer Team Up to Showcase Real Women in Tech

Late in 2018, NCWIT formed a media partnership with Wogrammer, a non-profit aiming to break stereotypes by presenting authentic profiles of women in STEM, to celebrate diverse women in tech through the power of social media storytelling.

Through this partnership, nearly a dozen women in computing from NCWIT programs, specifically from the Aspirations in Computing (AiC) Community and TECHNOLOChicas, will be profiled on the Wogrammer platform and cross-featured on NCWIT communications channels in order to maximize visibility and engagement.

Take a look back at features thus far at ncwit.org/wogrammer.
NCWIT Aspirations in Computing (AiC): Where Are They Now?

» In the 2019 Alabama State of the State address, Governor Kay Ivey recognized AiC Community Member Arrington Harper for her achievements in Computer Science and her advocacy work to advance the goal of greater inclusivity in the field of computing.

» Seven members of the AiC Community were named Global Teen Leaders by Three Dot Dash and the We Are Family Foundation! These teens are developing innovative tech approaches to the world’s most pressing problems.

”I want to continue to improve access to computing education for people like me at every level, from K-12 through higher education.” // In an op-ed piece, AiC Community Member and #CSforAll Accessibility Advocate Meredith Boyce calls out the systemic barriers to disabled women’s participation in computing.

» Another article profiles AiC Community Member Rian Walker and her personal transformation from a young student pursuing dreams of programming in spite of great odds, to an inspirational role model for others.

» Congratulations to two AiC Community members, Isha Puri and Eshika Saxena, who are among the winners of this year’s Cutler-Bell Prize! This award, sponsored by the Association for Computing Machinery (ACM) and Computer Science Teachers Association (CSTA), promotes the field of computer science and empowers students to pursue computing challenges beyond the traditional classroom environment.

Get monthly updates on AiC Community members and more at aspirations.org/news.


In partnership with the National Science Foundation (NSF) and NCWIT, CRA announced an initial launch of BPCnet.org, a resource portal designed to amplify the NSF CISE Directorate’s efforts in broadening participation in computing (BPC). CRA anticipates that BPCnet.org will provide a much-needed clearinghouse for the community to learn about and engage with ongoing projects to diversify computing.

Read the full announcement at https://cra.org/cra-launches-bpcnet/.

Alabama Selected as First Region to Benefit from Multi-Million Dollar Digital Skills Education Grant Received by NCWIT

This multi-year, multi-faceted initiative, designed to increase the number of technical women in the southeastern United States, will kick off on May 1, 2019. Birmingham has been selected as the launch site for the program, based on several criteria, including educational infrastructure, technical ecosystem, community support and demand, and city leadership.

This announcement results from the $4.1 million grant made to NCWIT by the Cognizant U.S. Foundation in December 2018.

Read the full announcement at ncwit.org/Cognizant-April19.
NCWIT Selected to Strengthen National K-16 Stem Education and Outreach

The U.S. Department of Defense recently launched a Defense STEM Education Consortium (DSEC)—more than a dozen organizations that will strengthen kindergarten through college STEM education and outreach programs across the United States. As a part of DSEC, NCWIT will provide coding camps concentrating around the three target regional hub areas: San Diego, Baltimore/DC/Virginia, and Dayton. Support includes NCWIT AspireIT coding camps and specific outreach to U.S. military bases overseas through NCWIT Aspirations in Computing—a program providing technical girls and women with ongoing engagement, visibility, and encouragement for their computing-related interests and achievements from high school through college and into the workforce.

“NCWIT AspireIT encourages K-12 girls to contribute their unique perspectives and ideas to future innovations,” said NCWIT CEO and Co-founder Lucy Sanders. “Since 2013, more than 9,500 girls have received an estimated 295,000 instruction hours through 436 AspireIT programs in 43 states; and, we are honored to align our expansion efforts of this program with DSEC goals.”

Read the full announcement at ncwit.org/DSEC-March19.

And More

NCWIT research, programs, and commentary were included in a number of national media outlets, including Business Insider, California ABC News Affiliate ABC7, CNET, Forbes, NPR, and Quartz; as well as community publications (ACM Inroads, Communications of the ACM, and the SIGCSE Bulletin).

ncwit.org/InTheNews