2024 NCWIT Summit

The 2024 NCWIT Summit will take place May 20—22, 2024, in Kansas City, MO at the Loews Kansas City Hotel. This year, the Summit will be in-person, with livestreams of sessions taking place on the plenary stage available for online participation. Watch this space for more details!

Where Conversations Lead to Change

With NCWIT being the trusted source for research-based strategies that facilitate reform in computing classes and technical organizations, the NCWIT Summit continues to be the world's largest annual convening of change leaders focused on significantly improving diversity and equity in computing.

2024 NCWIT Higher Ed Recognitions Award Recipients Announced

Harrold and Notkin Research and Graduate Mentoring Award

NCWIT is excited to name Dr. Klara Nahrstedt, the Grainger Distinguished Chair of Engineering Professor in the Department of Computer Science and Director of the Coordinated Science Laboratory at the University of Illinois at Urbana-Champaign as

the recipient of the 2024 [Harrold and Notkin Research and Graduate Mentoring Award](#).

"Klara is an outstanding researcher and mentor to her own PhD students and PhD students in a wider circle around her. She has built a highly successful research group, leading to many pioneering directions in the area of multimedia systems and networking, as well as highly successful researchers in leading academic and industrial organizations and companies," one recommender wrote.

Dr. Nahrstedt has mentored and graduated 36 PhD students, with many going on to become faculty members at major research universities as well as leaders in their respective research communities. Her research interests are directed toward:

- 3D tele-immersive systems
- Cyber-physical system security for electric vehicles
- Distributed systems and networking
- Edge-cloud systems and advanced edge-cloud-based cyber-infrastructures for scientific instruments

- Health systems
- Quality of service
- Resource management in Internet and mobile systems
- Real-time security in wireless networks for trustworthy power grids
- Trustworthy multimedia

In addition, Dr. Nahrstedt is an ACM Fellow, AAAS Fellow, IEEE Fellow, and National Academy of Engineering member who has won many best paper awards and has 35,000 citations, as well as dozens of research-based awards. As a mentor, she supports students across undergraduate, graduate, and post-doc programs to help them find their own paths and enjoy completing their research degrees. Her inclusive advising practices center around creating a sense of community and belonging for diverse mentees. She will be honored at the [2024 NCWIT Summit](#) in Kansas City, Mo., and will also be awarded $10,000 to her institution to continue her important work.

About the Award

The Harrold and Notkin Research and Graduate Mentoring Award is sponsored by the NCWIT Board of Directors and recognizes faculty members from non-profit institutions who distinguish themselves through outstanding research and excellent graduate mentoring, as well as those who recruit, encourage, and promote women and minorities in computing. It is given in memory of Mary Jean Harrold and David Notkin, to honor their outstanding research, graduate mentoring, and diversity contributions.

Joanne McGrath Cohoon Service Award

NCWIT is excited to name Dr. Nicki Washington, Director of the Identity in Computing Lab and the Cue Family Professor of the Practice of Computer Science and Professor of the Practice in the Program of Gender, Sexuality & Feminist Studies in the Trinity College of Arts & Sciences at Duke University, the recipient of the 2024 [Joanne McGrath Cohoon Service Award](#).

"Dr. Washington has been a fervent advocate for graduate students and early career scholars to have a platform and access to positions of power to raise our concerns and enact change.

She has advocated (and fought!) for our inclusion in decision-making committees, has provided us with a platform through her organization, Alliance for Identity-Inclusive Computing Education (AiiCE), and continuously engages the broader CS education community in dialogue around issues of equity and justice," a recommender wrote.

Dr. Washington's work to make computing more inclusive for people marginalized by race and gender is exemplary of how scholars can foster systemic change. She is well-known in the fields of computer science (CS), CS education research, and diversity, equity, and inclusion (DEI) for her work as:

Author of "[Unapologetically Dope: Lessons for Black Women and Girls on Surviving and Thriving in the Tech Field](#)," a book which serves as a "love letter" with practical advice for Black women navigating academic and professional CS environments and maintaining an authentic self.

Designer and professor of the [Race, Gender, Class (RGC) & Computing Course](#), an undergraduate course at Duke that teaches social justice concepts (race, class, gender, intersectionality, bias, etc.) in a CS context, which has reached hundreds of collegiate students.

Director of the [Alliance for Identity-Inclusive Computing Education (AiiCE)](#), an NSF INCLUDES Alliance dedicated to broadening participation in computing through a collective impact approach. AiiCE works across sectors spanning K-16 education.

Founder and Director of the [Cultural Competency in Computing (3C) Fellows Program](#), which has trained 320 faculty, administrators, and staff from 80 organizations in 5 countries on systemic change, policies, and personal practices for inclusion.

Dr. Washington's national and international impact are impressive, and her work considers all aspects of the systemic change model and intersectionality in meaningful and profound ways by disrupting deficit attitudes and approaches. Her research and practice engages learners and challenges them to critically consider their roles and interwoven systems in creating inclusive cultures for women and other minoritized groups, and calls us to action to enact lasting individual and systemic change. She also reaches broad audiences embedded in all levels of power throughout the tech ecosystem, from K-12 students and educators to professors, administrators, and staff, and into the workforce.

In addition, Dr. Washington conducts influential, original research as director AiiCE and helped set ABET accreditation standards for DEI and accessibility criteria. Fellows who completed her 3C Program speak highly of their personal transformation and growth, and of their empowerment to make sustainable systemic change in their home institutions and beyond. She will be honored at the [2024 NCWIT Summit](#) in Kansas City, Mo., and will also be awarded $10,000 to her institution to continue her important work.

About the Award

The award, sponsored by AT&T, honors distinguished educators and staff who have effectively challenged and changed the systems that shape the experiences of women undergraduates in

postsecondary computing programs. Award recipients demonstrate exceptional commitment to, and success in, creating long-lasting systemic change that improves the environment for all students who identify as women. The award is given in memory of Dr. Joanne McGrath Cohoon's outstanding research and advocacy work to broaden and enrich women's participation in computing.

Celebrate Black History Month

This February, NCWIT is honored to celebrate Black History Month and amplify Black-founded and -serving organizations combating inequity in computing and creating opportunities for Black girls, women, and non-binary people in STEM. It's vital to highlight these contributions, as DEI isn't just the Black community's responsibility — it's the responsibility of the entire STEM industry to not only broaden participation in computing, but to also ensure a thriving and sustainable workforce, as there are expected to be 4.2 million [computing-related job openings](#) in the U.S. by 2031.

According to the [2016 Computing and Intersectionality Report](#), the most recent data reveals a clear disparity in the number of computer science degrees conferred to Black Americans in the the US:

- 3.6% of undergraduate degrees
- 1.6% of masters degrees
- 1.2% of doctoral degrees

Below, find a list of organizations and initiatives that you can support this month and beyond!

Black Girls Code

Black Girls Code, a K-12 Alliance Partner, supports Black girls and gender nonconforming youth with computer programming education skills, training, and resources to nurture their careers in tech and to help launch their leadership potential. Black Girls Code is currently hosting a '[Build a Beat](#)' challenge where youth ages 13-18 can code their own song for a chance to meet award-winning musician Ciara.

blackcomputeHER

blackcomputerHER (pronounced 'Black computer') provides access to opportunity, education and training, executive thought leadership, as well as workforce development to support computing and tech education for Black women and girls. blackcomputerHER is also the creator of [CiteHER](#), a database that encourages citations of Black women in computing.

The Institute for African-American Mentoring in Computing Sciences (iAAMCS)

iAAMCS (pronounced 'I am CS') is a NCWIT Affinity Alliance partner that provides opportunities for hands-on computing research practice, robotics competitions, and methodological trainings to significantly increase the number of Black/African Americans pursuing and completing computing doctoral degrees via a national mentoring model.

The Center for Center for Minorities and People with Disabilities in Information Technology (CMD-IT)

CMD-IT, a NCWIT Affinity Alliance partner, is committed to fully engaging minorities and people with disabilities in computing and information technology through a united voice, resources, leadership initiatives, and national-scale projects. NCWIT and

program representatives attend CMD-IT's flagship conference, [the Richard Tapia conference](), annually. In 2024, the conference will be held in San Diego, California.

[Black Women in Computing (BWiC)]()

Black Women in Computing was launched in 2011 with the assistance of the Anita Borg Institute for Women in Technology and aims to provide online support and resources to increase the number of Black women in computing-related fields.

[Black-Liberation.Tech]()

Black-Liberation.Tech, created by Dr. Renée D. Jordan at iAAMCS, is an open educational resource that uses stories to teach Black and Afro-Latina youth and their parents or guardians about technology.

[Black Nerds Create]()

Black Nerds Create (formerly Black Girls Create) is a collective that advocates for and contributes toward representation in media for Black and systematically marginalized people via critical, creative, and fun content.

[Modern Figures Podcast]()

Modern Figures is a conversational-style podcast that elevates the voices of Black women and scholars in computing. This podcast is presented by iAAMCS and the Computing Research Association—Committee on Widening Participation (CRA-WP), in collaboration with NCWIT. As a response to the *Hidden Figures* movie, it was created to inspire students with representation of Black women in computing but is designed for all, regardless of computing and technology experience. Listen to all five seasons of the podcast on their site or on Apple and Google podcasts, Spotify, and Soundcloud! Plus, learn even more about the Modern

Figures podcast and their hosts by watching their 2023 NCWIT Conversations for Change [here](#).

Follow us on social media for more!

Enjoyed learning about these organizations? Head to our social media as we highlight revolutionary Black women in STEM this month!

[Linkedin](#) | **[Instagram](#)** | **[Facebook](#)** | **[Twitter](#)**

Introducing the Inaugural #AiCstories Ambassadors

There's no better way to begin this year than by spotlighting incredible women of color forging their own paths while paving the way for the next generation in technology and computing.

Introducing the [Inaugural #AiCstories Ambassadors](#)!

This year's ambassadors represent many facets of this nation: From the DMV, to Chicago, across the country to Brooklyn, and to the Navajo Nation Reservation in New Mexico. Their computing interests are vast: from cybersecurity, to AI, and even hardware and software. They've worked as Instructional Leads at [Girls Who Code](#), an NCWIT K-12 Alliance member organization; held internships at SeatGeek as well as NCWIT Investment Partner, Amazon; and hold leadership positions on task forces that bring K-12 computer science education to their hometowns. It is this diversity that fosters innovation and societal advancements — diversity that the technology and computing industries

desperately need.

> *"Despite my parents not being actively in jobs that interact with technology, my fascination with technology started during elementary school where my friends and I learned to change the color of the Google background on the school desktops using the inspect feature on the website."*
>
> *— Santoya Martinez, University of New Mexico junior*

This January, meet the inaugural #AiCstories Ambassadors as they detail their technology and computing journeys, ~~world takeover~~ post-graduation career goals, and provide encouraging advice for the next generation. Prepare to be inspired!

[Introducing the Inaugural #AicStories Ambassadors](#)

Doreen Joseph

Doreen Joseph is a Ph.D. candidate in computer science at the University of California, Davis with an expected graduation year of 2025. She holds a Bachelor's of Science in Cyber Security Engineering with a minor in math from George Mason University, and a Masters in Computer Science from UC Davis — the first Black woman to do so. She joined the Aspirations in Computing (AiC) Community in May 2022 through the collegiate entry point and will be an upcoming Ask Me Anything (AMA) host in the AiC community Slack channel on Monday Feb 5th at 5 pm EST / 4 pm CST / 3 pm MST / 2 pm PST. Doreen will detail her journey, specifically being the first Black woman to receive degrees at University of California, Davis. Follow our [Instagram](#) for upcoming registration information!

Watch her story via the [NCWIT Media Hub](#) and on [YouTube](#).

Emily Mendoza

Emily Mendoza is a junior at the University of Illinois at Chicago. She is pursuing a Bachelor's Degree in Computer Science and expects to graduate in 2025. She joined the AiC Community in 2020 after receiving both the National Honorable Mention and Affiliate Winner designations for the Aspirations in Computing High School Award.

Watch her story via the [NCWIT Media Hub](#) and on [YouTube](#).

Alexis Wang

Alexis Wang is a senior at the California Institute of Technology pursuing a Bachelor's Degree in Computer Science and expects to graduate this year. Alexis was a participant in BridgeUP STEM and interned at the American Museum of Natural History. Alexis joined the AiC Community in 2020 after receiving the 2020 Aspirations in Computing High School Award.

Watch her story via the [NCWIT Media Hub](#) and on [YouTube](#).

Santoya Martinez

Santoya Martinez is a senior at University of New Mexico and expects to graduate in 2024. She is pursuing a Bachelor's degree in Computer Science. She recently presented her work from the New Mexico Computer Science Task Force—aimed at integrating computer science education into K-12 schools—at the 2022 Tapia Conference. She joined the AiC Community in 2019, after receiving the Aspirations in Computing High School Award.

Watch her story via the [NCWIT Media Hub](#) and on [YouTube](#).

Lifting As They Climb

Although the #AiCStories Ambassadors journeys are awe-inspiring, as the first and sometimes only women of color entering and navigating their respective tech spaces, they're not without challenges and moments of self-doubt.

"I would probably tell myself to believe in myself more and just continue exploring."

— Doreen Joseph, University of California, Davis, Ph.D. candidate

Although research has shown that women from races and ethnicities historically underrepresented in computing are less likely to major or work in computer science, these women continue to pursue their dreams and lift as they climb for the next generation.

"I will share my experiences with other Latinas in STEM to help uplift them because we don't have as much representation. I want to be an example of, "yes, you can, si se puede." I feel so, so incredibly euphoric when I see someone else not quite like me, but someone like me going up and being very successful and very outspoken and wise. It really inspires me to continue pushing forward and to keep pushing my limits to see if I can become someone like Tiffany Pope one day."

— Emily Mendoza, University of Illinois at Chicago junior

The Future of Tech is Here

The [NCWIT Aspirations in Computing](#) program was created to address barriers and support historically minoritized students in pursuing technical fields of study and their computing-related passions. AiC believes that no matter where you stem from, the world needs your ideas.

All of our 2023 #AiCStories Ambassadors agreed: The AiC Community was vital in helping to combat feelings of diffidence, isolation, and imposter syndrome. Whether they joined in college

or previously won an AiC High School Award, the uplifting network of talented and dedicated women, genderqueer, and non-binary members has been crucial to their personal well-being and professional successes.

"When I was a senior in high school, I was so excited to be an Honorable Mention recipient of the Aspirations in Computing High School Award. After attending the award ceremony and joining the community, I felt supported, proud, and capable of success in computing and technology. It helped me gain confidence in myself, which is something I needed when I first got to Caltech. I feel relieved knowing I have this diverse support network outside of school."

— Alexis Wang, California Institute of Technology senior

Share Your Story with Aspirations in Computing Community

Feeling inspired by the #AiCstories Ambassadors? NCWIT is encouraging ALL Aspirations in Computing (AiC) Community members to raise their voices, share their experiences, and tell their stories to inspire others!

"I'm a firm believer that exposure creates options, so I'm grateful for the exposure to technology that I had as a kid because it sparked my interest in the field. I'm also a firm believer in the power of sharing our stories, and the AiC community is a great opportunity to not only tell my story to help others, but also to learn from the stories of fellow community members. It's no secret that the demographic makeup of computing needs improvement, so I aspire to lift as I climb by empowering students who are underrepresented and marginalized in STEM to take their place."

— Doreen Joseph, University of California, Davis, Ph.D. candidate

Learn more about [AiC Stories](#), the current [AiC Story Ambassadors](#), and [how to submit your story](#) online.

Interview with an Artemis Engineer

At 1:47 am ET on Nov. 16, 2022, history was made and a dream came true. [Artemis I](#), the largest rocket ever launched by the National Aeronautics and Space Administration (NASA), lifted off from the Kennedy Space Center in Cape Canaveral, Fla., and embarked on a successful, 25-day test flight around the moon and back to Earth. Meanwhile, Mechanical Engineer and TECHNOLOchicas 5.0 Ambassador Zaida Hernańdez kept watch on the thermal systems from the Christopher C. Kraft Jr. Mission Control Center.

> *"Exploring the next frontier, being part of one of the most well-known engineering and science centers in the world, and working on missions that would benefit humanity are some of the reasons I became interested in engineering — particularly in the space industry.*
>
> *— Zaida Herna´ndez, NASA Mechanical Engineer and TECHNOLOchica*

Videos with Zaida: [**For Students**](#) | [**For Adult Influencers**](#) | [**For Educators**](#)
En Español: [**Para Estudiantes**](#) | [**Para Adultas Influyentes**](#) | [**Para Docentes**](#)

In that moment, Zaida's childhood wish to work in space technology became hyperreal. The unmanned Artemis I tour around the moon also marked the first integrated flight test of NASA's Deep Space Exploration Systems, which includes the Orion spacecraft, the Space Launch System (SLS) rocket, and upgraded Exploration Ground Systems — and there's much more to come.

> *"Artemis II will take the first woman and person of color to the moon, but it is the first of many more missions that*

promise diversity and inclusion in space."

— Zaida Herna´ndez

Smithsonian Documentary — [Project Artemis: Back to the Moon](#) (44-min)

After recycling and refurbishing the Orion capsule following its re-entry to Earth, splashdown, and retrieval from the Pacific Ocean near Baja, Calif., Artemis II is currently scheduled to launch again in November 2024. Zaida supports the mission by working on the craft's thermal protection system and shielding materials for the vehicle that will carry [a crew of four](#) — which she's done since she landed an internship with NASA in college.

"Finding out that I would continue to do this full time was very exciting for me! I feel like it is an honor knowing that I am a small contributor of the many people across the US supporting the Artemis mission."

— Zaida Herna´ndez

Download the 11×17 NASA Poster: [Artemis II – For All Humanity](#)

As the name suggests, the Orion capsule has some truly astronomical specs in order to withstand the extreme physical forces involved in space travel. Zaida explained that the spacecraft is equipped with with thermal protection systems to safeguard the people and equipment inside from temperatures as high as 4000°F.

> *"Orion can be thought of as an aeroshell with a heatshield and a backshell. The thermal system includes tiles and ablators which have all undergone extensive testing and can take the heat."*
>
> *— Zaida Herna´ndez*

Podcasts: [NASA's Curious Universe](#) | [Universo Curioso de NASA](#)

Zaida also works on [a lunar vehicle](#) to ensure all of the components hold up to the conditions on the moon's South Pole, which can be very hot or very cold. As seen with other technological leaps stemming from space missions, there are numerous potential applications across other fields. In fact, the kind of technology Zaida engineers is already changing the world.

> *"There have been a number of 'spinoffs' of NASA-developed technology used in commercial applications for Earth, including fire resistant materials and even extreme weather clothing."*
>
> *— Zaida Herna´ndez*

For Educators: [What is the Artemis Program? (Grades 5-8)](#)

Zaida earned her Bachelor of Science in mechanical engineering in 2015 and Master's Degree in Industrial Engineering in 2017

from the University of Houston, an [NCWIT Higher Ed Alliance](#) member institution. She knew that technology presented opportunities for creativity, innovation, and making an impact. Yet even with her academic background, hands-on experience from her internship, and support from her parents, when looking back, Zaida admits she grappled with imposter syndrome when she was brought on full-time at NASA's Johnson Space Center.

> *"Honestly, the realization that I would be working there as an engineer didn't hit me until after I started to work there. Now that I think about it, I feel that I experienced imposter syndrome. I felt like they could change their minds and take back my offer, but once I accepted it, I felt very proud of this accomplishment."*
>
> *— Zaida Herna´ndez*

Get the Artemis Camp Experience: [For Grades K-12 + Informal Education](#)

Zaida's experience underscores the importance of both representation and inclusive cultures that promote a sense of belonging, which is why she felt motivated to become a TECHNOLOchicas Ambassador and help diverse technologists to both see themselves as integral to the industries that inspire them and understand their ideas and perspectives are needed.

> *"I don't have to search far to find great role models in my field. I work with some previous TECHNOLOchicas that I think are amazing in their roles: Diana Trujillo, NASA Flight Director, and Alma Stephanie Tapia, NASA Materials Engineer."*
>
> *— Zaida Herna´ndez*

TECHNOLOchicas Ambassadors at NASA: [Ali](#) | [Alma + Susana](#) | [Diana](#)

For students who now look up to her and aspire to careers in aerospace at NASA — or who hope to build a career with technology in another arena, Zaida offers the following advice:

> *"Internships are wonderful. Don't wait until your senior year to start applying. There is so much value from real-world applications and learning."*
>
> *— Zaida Herna´ndez*

TECHNOLOchicas

Follow us on social media for more!

To learn about more [the TECHNOLOchicas program](#), and to be notified of upcoming events and networking opportunities, follow TECHNOLOchicas on social media: **Linkedin** | **Instagram** | **Facebook** | **Twitter** | **YouTube**. You can also [sign up for the TECHNOLOchicas newsletter](#).

Be a TECHNOLOchicas Ambassador

If you are a Latina who loves technology, are in college or a technical field, and also want to be a role model for the next generation of technologists, you can [fill out this form](#) to get started.

https://youtu.be/cSYQ_Swy47I

Join the Aspirations in Computing Community

In addition to supporting awareness-raising and representation

via TECHNOLOchicas, the NCWIT Aspirations in Computing program is designed to help support underrepresented students in pursing their passions and persisting in technical fields of study in two ways:

1. **[NCWIT Aspirations in Computing Recognitions](#)**
2. **[NCWIT Aspirations in Computing Community](#)**

The first initiative aims to celebrate and encourage students nationwide who are women, genderqueer, and non-binary to pursue their passion for technology, as well as professionals and educators who champion efforts to increase diversity and inclusion in computing education and careers. The second convenes a network of more than 25,000 amazing and encouraging peers across the country, providing exclusive opportunities and access to events throughout the year. TECHNOLOchicas and students who are currently in high school, in undergraduate programs, and pursuing graduate degrees can join the community online today.

Volunteer with AiC to Help Select Awardees

If you would like to directly support students with Aspirations in Computing, you can register as a volunteer [Award Reviewer](#) at [aspirations.org](#) and help select awardees for recognition each year! It's an easy and inspiring way to make an impact in young people's lives and help bridge gaps in technology fields. [Check out the previous NCWIT blog post to learn more](#).

Volunteer with Aspirations in Computing

Each year, the Aspirations in Computing (AiC) program receives thousands of amazing award applications from women, genderqueer, and non-binary students across the country who are interested in tech. To select recipients of the national and regional awards, volunteers of all experience levels are needed to review and score each submission. It's a simple and inspiring way to meet and help support the next generation of computer scientists and technologists and increase much-needed diversity within STEM fields!

Reasons to Volunteer as a Reviewer

The goal of Aspirations in Computing Recognitions is two-fold:

1. Create a diverse talent discovery pipeline.
2. Build a supportive community nationwide.

Volunteers reviewers play a key role in recognizing and encouraging the next generation of technologists, as well as their educators and mentors. It's also rewarding and convenient, since volunteers can complete reviews at their own pace online anytime before the deadlines listed below:

1. **AiC High School Award:** October 30, 2023 – December 3, 2023
2. **AiC Educator Award:** December 1, 2023 – January 8, 2024
3. **AiC Collegiate Award Round 1:** December 1 – January 1, 2024
4. **AiC Collegiate Award Round 2:** February 8 – February 29, 2024

Each review takes about 10-25 minutes to complete, and outside of the Collegiate Award, no technical experience is required to participate. Find more details about the commitments and experience required **here**.

In addition, the Aspirations in Computing team provides volunteer certificates to those who complete more than 20 reviews. Check with your company to see if being a volunteer application reviewer qualifies as required corporate volunteer hours!

Become a Volunteer Reviewer Today

To get started, visit **aspirations.org** and click "REGISTER" in the top nav bar. This directs to the secure registration portal where volunteers can select the "Award Reviewer" account type at the bottom of the page. To create an account, simply provide a valid email address and set your password. When signed in, volunteers can request reviews, and the AiC team will assign a batch of the minimum required applications to review.

Holiday Give-Back Goal: Review Award Apps

Looking for a way to feel and express your gratitude this season? The upcoming holiday is a great time to review award applications and be thankful that so many talented young people and passionate educators are interested in computing and technology and devoted to increasing inclusion! Each review takes about 10-25 minutes, and you can go at your own pace until the review periods close.

Share with your network on **Linkedin** | **Instagram** | **Facebook** | **Twitter**

Learn on Demand with AiC

If you can't make the event on Nov. 15, or if you have questions, you can watch a recording of a Q&A webinar with the Aspirations in Computing Recognitions Program Manager Susahnn

Valente and Regional Affiliate Manager Susie Park-Kelly. Each award also has an online training module and instructions that reviewers are strongly encouraged to complete:

- **[AiC High School Award Volunteer Reviewer Training Module](#)**
- **[AiC Collegiate Award Volunteer Reviewer Training Module](#)**
- **[AiC Educator Award Volunteer Reviewer Training Module](#)**
- **[Volunteer Reviewer Instructions](#)**

https://vimeo.com/878384390/51792faa8a?share=copy

Volunteers with additional questions are also welcome to send an email to **aichelp@ncwit.org**.

Meet NCWIT's First DoD STEM Ambassador

"I was introduced to NCWIT by a colleague 6 years ago. I became a participant of the then K-12 Member Huddle and then a K-12 Alliance Member. I've used the resources and research provided by NCWIT in the implementation of programs in the USC Viterbi K-12 STEM Center. Being selected by my esteemed colleagues at NCWIT as their first DoD STEM Ambassador in this prestigious cohort of STEM educators is a true honor."

Dr. Darin Gray

Director of the [Viterbi School of Engineering K-12 STEM Center](#) at the [University of Southern California](#)

We are delighted to introduce Dr. Darin Gray, a distinguished leader in K-12 STEM education, as the inaugural [DoD STEM Ambassador](#) hosted by NCWIT. Ambassadors are carefully chosen by the Department of Defense STEM Education Consortium (DSEC), and the program recognizes outstanding educators who are committed to working with students who have been historically underrepresented in STEM (and/or are military connected) while promoting STEM learning nationwide. Each school year, the DoD STEM Ambassadors work together to create and curate remote learning and digital materials to be shared with educators, like lesson plans, learning activities, and creative engagement approaches. In this role, Darin plans to focus on making artificial intelligence (AI) accessible and culturally responsive.

It is a pleasure to unite a long-time [NCWIT K-12 Alliance](#) member at an [NCWIT Higher Ed Alliance](#) member institution with NCWIT Investment Partner organization, [DoD STEM](#). We look forward to continuing to work collaboratively toward the mission of improving access and inclusion in STEM and computing education. Learn more about the 2023-2024 Ambassadors and Dr. Darin Gray below.

Find [a full directory of DoD STEM Ambassadors](#) and partner organizations online, and follow DoD STEM and NCWIT on social media for updates.

Dr. Darin Gray, DoD STEM Ambassador

Darin is an alumnus of USC. He's earned:

- a Bachelor's degree in Biomedical and Electrical Engineering from USC Viterbi School of Engineering
- a Bachelor's degree in Mathematics from [USC Dornsife College of Letters, Arts and Sciences](#)
- a Master's degree in teaching with an emphasis in mathematics from [USC Rossier School of Education](#)
- a Master's degree in Cybersecurity from [Cal State San Marcos](#)
- a Doctorate in Education Technology from [Boise State University](#)

He also holds teaching credentials in math and science.

After graduating from USC, Darin worked for the Hughes Aircraft Company's Advanced Circuit Technology Lab, where he designed analog to digital converters for the Radar Systems Group. After leaving Hughes, Darin spent 25 years working for the Los Angeles Unified School District's (LAUSD) Division of Adult and Career Education as a mathematics instructor and as a coordinator for an alternative high school. He has also been at USC Viterbi for over 25 years (20 of which while simultaneously working for LAUSD) and prior to being the Director, he was the STEM Coordinator responsible for program support, curricula development and teacher professional development.

In addition, Darin is a retired Master sergeant in the [California State Guard](#), where he assisted with IT and cybersecurity for state systems and provided training for service members.

At the K-12 STEM Center

As director, Darin:

- oversees logistics and operations
- supervises STEM outreach to K-12 students
- forges new partnerships with STEM organizations, both within and outside of the University
- oversees data driven program analyses

He also teaches an introduction to engineering course and a cybersecurity seminar at USC.

Additional Awards + Honors

Darin recently received:

- the 2023 [USC Amy King Dundon-Berchtold University Club of USC](#) Award for Outstanding Service in the area of DEI
- the 2023 California Medal of Merit from the [California Military Department](#)
- the 2022 [Engineers' Council](#) STEM Educator Award

He has also been honored with:

- the 2020 James E. Ballinger Engineer of the Year award
- a USC Alumni Volunteer Award, the Congressional Certificate for Recognition for outstanding and invaluable service to the community
- the California Assembly Certificate of Recognition for Outstanding Leadership
- the California State Senate Certificate of Recognition for excellence in teaching, the California Council for Adult Education Award for Excellence in teaching
- the California Medal of Merit
- the California Commendation Medal
- the California State Military Reserve Enlisted Excellence Medal
- the California Assembly Certificate of Recognition for Outstanding Leadership.

He has also presented at several conferences and symposiums, including:

- the National Association for College Admission Counseling's Guiding the Way to Inclusion Conference

- American Society of Engineering Education Conference
- the California STEM Symposium, the State of STEM Conference
- the American Association for Adult and Continuing Education and the Magnet Schools of America Conference

Please join us in celebrating DoD STEM Ambassador Dr. Darin Gray's selection for the 2023-2024 school year, and look for updates on his goals for AI in NCWIT newsletters and on social media in the coming months.

Listen + Learn: Regional Initiatives in Pittsburgh

A partnership, a podcast, a presentation, and more…

The [NCWIT Regional Initiatives](#) team recently joined partners in Pittsburgh for a presentation and event series hosted by the [Pittsburgh Technology Council](#) and [Fortyx80](#). In early September, program lead Stephanie Weber also joined a podcast hosted by partner organizations to talk about what NCWIT does locally and nationally, along with Paige Frank, a national [NCWIT Aspirations in Computing High School Award](#) winner who is currently studying computing at the [University of Pittsburgh](#), an [NCWIT Higher Ed Alliance](#) member institution.

[Listen: One Mic Stand Podcast with NCWIT](#)

Originally aired on September 5, 2023 — 24 min
Interview by Jonathan Kersting and Marie Pelloni

Following the *Innovation, Culture, and You* presentation for members, there was a [Sit With Me](#) reception hosted by [RedChairPGH](#), a non-profit committed to gender equity in the regional tech sector. Attendees of the NCWIT workshop were also invited and encouraged to join, listen, and share their stories and experiences as inclusive change agents within the technology workforce. The annual event aims to address the challenges women face in tech fields, as well as offer support and encouragement to those already within the workforce to help them stay.

[An article published by Technical.ly](#) on September 21, 2023, cites data showing that women leave tech careers at faster rates than men, which is why RedChairPGH intends to support those who remain and help boost regional retention. In fact, RedChairPGH board chairs Julia Poepping and Lou Camerlengo said the organization was inspired in part by NCWIT's research into equity in tech. Poepping was a member of a women's networking group with the Pittsburgh Tech Council in 2015, and asked for assistance. Ultimately, that led to the very first #sitwithme event being held at the University of Pittsburgh — and it was a resounding success that has since inspired similar campaigns across the country.

About NCWIT Regional Initiatives

NCWIT Regional Initiatives bundle research-backed programs and practices to increase the local participation of women and girls in tech fields and careers. To achieve this goal, NCWIT also partners with local community stakeholders to build awareness, inspire participation, and connect women to like-minded peers, role models, and opportunities. This regional approach was [expanded to Pittsburgh in April 2022](#), thanks to generous support from the [Henry L. Hillman Foundation](#).

Safe Spaces vs Brave Spaces

The Battle for Inclusion in Our Nation's Cultural Conversation

By Dr. Brad McLain, Director of the Center for STEM Learning at CU Boulder

As the Director of Corporate Research for the National Center for Women & Information Technology (NCWIT), my team and I work on building more innovative and inclusive cultures in some of the largest tech companies in the world. In this work, we face a dilemma: Should we be creating psychologically **safe** spaces for technical teams in the companies we work with, so that individuals can authentically and openly discuss their true personal experiences of their team cultures as a pathway to change? Or, should we be creating psychologically **brave** spaces for (wait for it)… individuals to authentically and openly discuss their true personal experiences of their team cultures as a pathway to equitable and inclusive culture change?

In practice, we have usually danced along this boundary to the tune of, "Well, it takes both, of course." But does it really? Is there such a thing as a *safe* space to share your true feelings and even your harsher experiences at work without penalties or repercussions of some kind? Is there really a way to eliminate the risks of sharing your experiences of frustration, discrimination, exclusion, and even humiliation at times? In my view, the situation has recently changed dramatically…

If you are part of one or more marginalized identity groups —

namely being anything other than hetero-cis-male-white within a patriarchal team power culture — the answer is an emphatic "no." There is tremendous personal and professional risk in sharing your actual work experiences openly. And this has long been true.

The risks include being labeled:

- a "trouble-maker,"
- a "complainer"
- or "not-a-team-player."

Even simply calling attention to the fact that you are different in some way can be risky, thus making your work life all the more complicated. The consequences may appear in the form of:

- fewer opportunities for stretch assignments,
- a lack of mentors or sponsors so important for success,
- or lost promotions and advancement.

The risks can also be more subtle barriers to your interpersonal relationships, or even internal to your own sense-of-self — such as through the experience of stereotype threat, which is the fear of reinforcing negative stereotypes about a marginalized group you belong to and is known to reduce belonging, inhibit performance, and damage both physical and psychological health.

Majority group members, on the other hand, have a much lower risk (though not zero) for expressing themselves and bringing their "whole selves" to work, or for sharing their views (personal or professional) because they are implicitly validated even before they open their mouths to speak. This kind of privilege is mostly invisible to those who have it, to paraphrase the sociologist Michael Kimmel. Speaking as a majority group member myself, I can attest to this effect in the executive workshops we conduct as part of our work at NCWIT. And

as an ally to more inclusive culture construction, I will often introduce myself with the elephant-in-the-room question — "Is the middle-aged white guy REALLY going to stand up and talk to us about inclusion?"

And my answer, "Yes he is. Not only do I study this as a social scientist, but I am a member of the group who generally has the most 'position power' to make change — and I am a member of the group who has the most changing to do, personally, if cultures are to change at all."

> So, the question is not: Why am I standing up to talk about this? The question is: Why aren't more majority group members seeing this as their personal responsibility to do the same?""

All that is assuming, of course, that people are honest brokers with good and fair intentions regarding inclusivity. The hard truth is that not everyone is — and that is more true now than it has been in the past three decades. Many in the majority have an unconscious or even a conscious investment in the status-quo, where their power and privilege are secure. So I ask again, as change agents of inclusive culture construction, should we be creating *safe* spaces or *brave* spaces for our efforts to drive change?

Now, along comes the twist. The anti-woke narrative that is currently snowballing through our nation's cultural conversation is creating a *safe* space… but it is a safe space for open and self-righteous racism, sexism, and anti-LGBTQ+ hostility and exclusion.

This anti-diversity movement has been powerfully enabled and openly encouraged by the Supreme Court's recent rulings to outlaw affirmative action related to race-conscious college admissions and women's reproductive rights, all of which

disproportionately affects Black, Brown, and poor people. Simultaneously, these recent decisions promote the right to bigotry, intolerance, and open discrimination if you claim religious "freedom." It is also being introduced and boldly articulated in state legislatures as bills — and now laws — codifying and enshrining the right to oppress, demean, shame and deprive minorities of their rights, and in some cases, their existence.

What is more, this growing narrative is not-so-cleverly attempting to hijack the language of inclusion with claims to advance equity through "color-blindness" advocacy, or "leveling the playing field" (mainly for majorities 'oppressed' by DEI), or framing their efforts as "defending our children from dangerous ideas" (an age-old cry of the oppressor). Now, some are even absurdly touting the "benefits" of slavery for Black people so as to re-narrate the many horrors upon which our society was built.

These stances strategically ignore and purposely seek to dismantle and re-write the historical and cultural context of how our modern institutions, our norms, and our values systematically under-privilege those who fall into any category of "other." This includes the intersectional identity categories of race, ethnicity, age, class, gender, sexual orientation, dis/ability, body size, and more.

This changes things. The risks of speaking up for diversity, equity, and inclusion — or even participating in DEI initiatives — has gone up with this growing narrative. But the risks for NOT doing so are now even higher.

The tender-hearted cry for creating *safe* spaces to explore issues around diversity, equity, and inclusion *must* now be replaced with a clarion call-to-action to charge into *brave*

spaces to confront this toxic narrative head-on if we truly believe in the elevating and noble promise of our purported American ideals. Among them: liberty, plurality, tolerance, and inclusivity within one of the world's most ethnically diverse and multicultural nations. Is that not who we are? And if not, is that not who we want to become?

And it is a call-to-action for majority group allies above all. Creating a ***brave*** space to build more inclusive cultures at work is where to start. If you are a majority-group member in one or more ways, this is a call to learn more about the social science of belonging, the ways *you* can personally promote a culture that supports growth for all, and how to best author a counter-narrative to the anti-woke propaganda currently poisoning our cultural conversation. It is time to start using that implicit majority-group power and privilege to *own* and *deliver* on our shared responsibilities to one another as people, and to our collective identity as citizens of this pluralistic nation and of the world.

Want to talk about this more? I'll [hold an AMA](#) on August 31, 2023 at 10 a.m. PT / 11 a.m. MT / 12 p.m. CT / 1 p.m. ET on the NCWIT Linkedin page. You can also join my team's upcoming [NCWIT Conversation for Change — The Criminalization of Inclusion: Spotlight on Anti-DEI Rhetoric](#) — on September 6, 2023 at 10 a.m. PT / 11 a.m. MT / 12 p.m. CT / 1 p.m. ET.
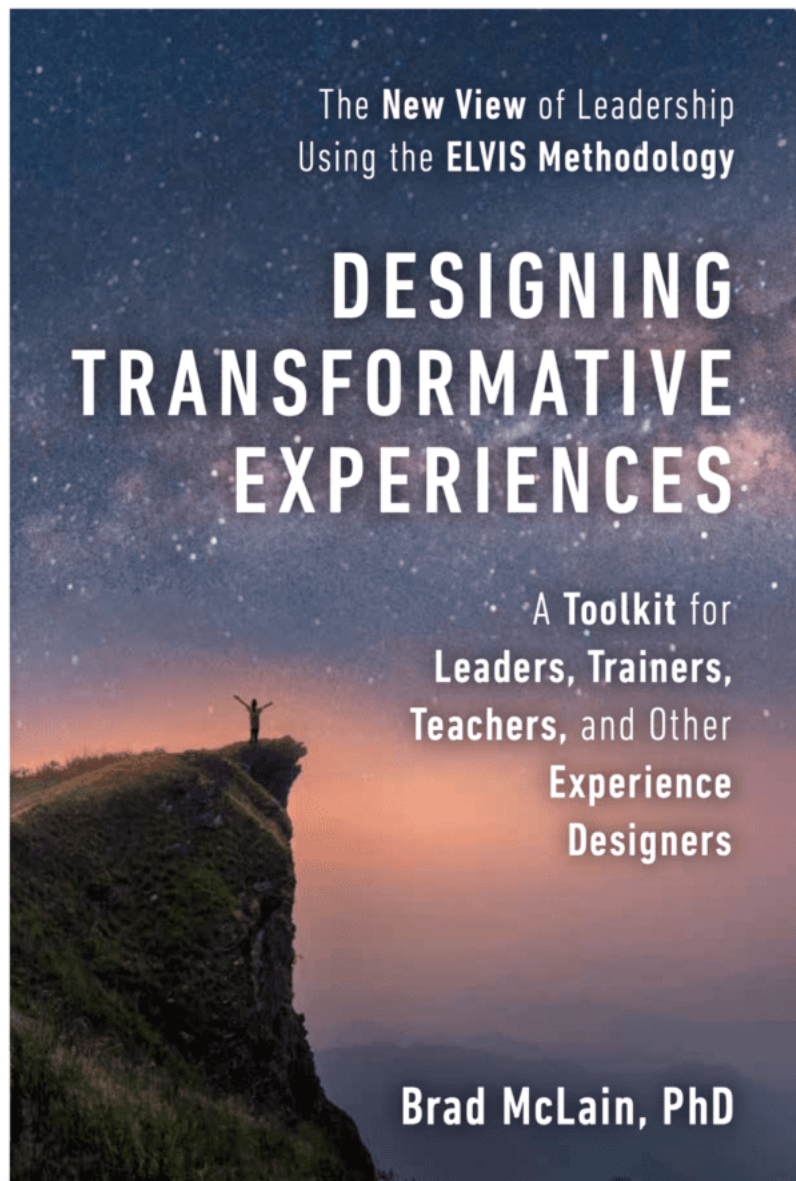
Author's Notes: From the Desk of Dr. Brad McLain

About the author: Dr. Brad McLain serves as the Director of Corporate Research at the National Center for Women & Information Technology (NCWIT) and the Director of the Center for STEM Learning at the University of Colorado – Boulder (CU Boulder). Previously, he worked as an educational researcher at NASA and served two terms on the Board of Directors of the Jane Goodall Institute. [Read his profile here](#).

A book, a framework, and more…

Leaders, trainers, and teachers are all tasked with creating and facilitating learning experiences, some of which can shift our

sense of self and even the course and direction of our lives. To better understand how to intentionally craft experiences that encourage impactful personal transformation, Dr. Brad McLain established a framework named ELVIS — the Experiential Learning Variables and Indicators System. Using this tool, experienced designers can unlock enormous potential for transforming lives and empowering growth. Continue reading below for a full-page excerpt from the book, and details on how to connect with the author.

The **New View** of Leadership
Using the **ELVIS** Methodology

DESIGNING TRANSFORMATIVE EXPERIENCES

A **Toolkit** for
Leaders, Trainers,
Teachers, and Other
Experience
Designers

Brad McLain, PhD

"What if we could become expert designers of experiences that propel the growth and transformation of others, whether we play the roles of leaders, educators, parents, artists, or friends? Becoming skilled at the art of transformation is to harness a life-changing tool that allows us, as Henry David Thoreau put it, 'to live deep and suck out all the marrow of life.' That is what this book is about."

To get a copy, you can:

- [Order *Designing Transformative Experiences*](#) + Companion Content
- Professors: [Request an exam copy](#)
- [Buy in bulk from Porchlight](#)

Author's Notes from Dr. Brad McLain

Designing Transformative Experiences is a book 20 years in the making. In a very real sense, it represents a nexus in my life; a nexus of ideas, research, personal adventures, relationships, and life-changing experiences. It is tempting to say that it could not have been released into the world any earlier than now, because not only did it require the necessary time for the concepts I present here to ripen and mature, but also for the various disparate threads of inquiry and investigation to merge and coalesce.

Namely, these include experiential learning, leadership, the narrative study of lives, and identity theory. Fitting these together into a framework that actually simplifies their meanings in concert with each other is one of the greatest achievements I feel with this book. For this achievement, I must thank so many people I have worked with over the years. Perhaps none moreso than my "accountability partner" and best-selling author himself, Dr. Paul Marciano, who insisted I finish it and ensured that I did.

My dearest hope is that this book will be put to good use by leaders in the many domains of human life where they emerge. Wherever true seekers of life mysteries — both within us and beyond us — are opening their eyes to change leadership through

experience design … this is where *Designing Transformative Experiences* will have found its tribe.

A Testimonial from Dr. Jane Goodall

Dr. Jane Goodall and Dr. Brad McLain.

> *"Everyone can make a positive difference in this world. Often, this requires us to change something about ourselves and the choices we make. This book will be especially valuable to those who are leaders, or aspiring leaders, in their field."*
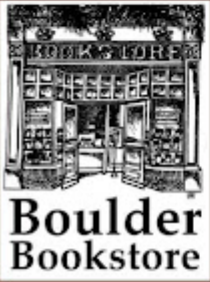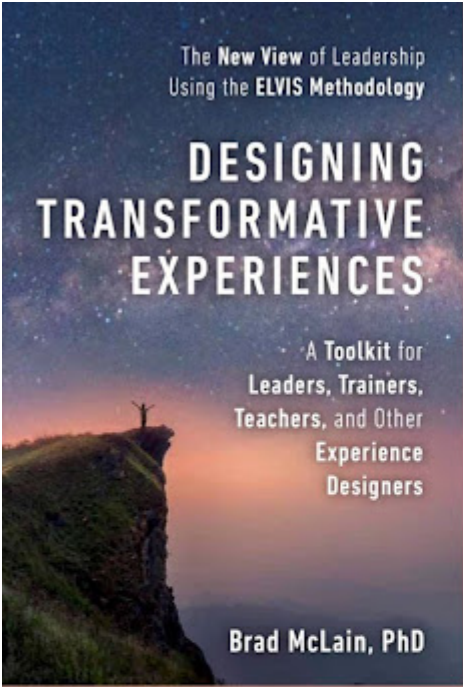>
> *Dr. Jane Goodall, Conservationist and UN Peace Ambassador*

Video: Experience Design Leadership

In this highlights video from the 2023 NCWIT Summit, Dr. Brad McLain presents *Experience Design Leadership* as he traces the path from life-changing events to personal identity growth and how leaders can harness this psychology to empower their teams and build more inclusive cultures. He also shares the ELVIS framework for intentionally designing transformative experiences and challenges us to a deeper understanding of the power of great leadership.

Engage the Author at Upcoming Events

August 29, 2023: Those near Boulder, Colo., can join Dr. Brad McLain for a ticketed event at Boulder Bookstore at 6:30 pm on August 29th. Tickets can be purchased online at McLainBBS.eventbrite.com.

Book Excerpt: Page 2

Transformative experiences are the most powerful events in our lives. They shape and define us. They are what we secretly crave, what we strive for, and what we cherish most, both personally and professionally. They are the events upon which our lives turn and our destinies unfold. And through us, transformative experiences can change the world.

What if we could understand how transformative experiences work across a range of human experiences? What if we could use that understanding to intentionally design "the transformative" into our lives and the lives of others? And what if we could harness this understanding for leadership—designing transformative experiences to motivate, elevate, and inspire those we lead? Imagine the possi- bilities for leading the way to a more positive and inspiring world.

After all, this is how we describe our very best leaders—at work, in innovation, teaching, coaching, parenting, the arts, and every other domain. Transformative leaders seem to have an innate and ineffable ability to touch our hearts, provoke our minds, stretch us beyond ourselves, and conjure experiences that change our lives and make the world a better place.

Is there a code or formula for leading in this way consciously, deliberately, and strategically? Is there a body of knowledge we can harness to become masters of this art? How can we become trans- formative experience designers?

While there is no singular one-size-fits-all recipe for designing transformative experiences, there is indeed a research-based method, which I present here in this book as Experience Design Leadership using the methodology of ELVIS: Experiential Learning Variables & Indicators System. But before we get into all that, we must ground ourselves in a simple yet profound truth:

Transformative experiences do not happen *to* us, they are created *by* us . . .
whether we realize it or not.

Over the past two decades in my work as a social scientist, I've been exploring the nature and psychology of transformative experiences in an effort to understand what they are and how

they operate. I have been extremely privileged to work with exceptional leaders en- gaged in efforts that shape our world and affect all our lives—from contributing to NASA and the Space Shuttle Program, to collabo- rating with Jane Goodall for over 15 years on her world conservation efforts, to leading cutting-edge education research for the National Science Foundation, to leading groups on international travel and other adventures, to directing three documentary films, to working on the psychology of leadership with some of the largest and most influential companies in the world.

This work has led to a fundamental understanding at the core of how transformative experiences unfold. People typically describe their most transformative experience as something that *happened to them* and over which they had very little control. But on closer investigation, these experiences—including what they mean in our lives, our capacity to fully participate in them, and their outcomes— ultimately *come from within us*, regardless of the external triggers or circumstances. The transformative in our lives is not simply waiting for us out there somewhere; its possibility and its potency are quietly waiting for us in here.

Why is this? How is this? And how can we unlock this latent potential? Imagine if we could understand how transformative experiences work and use that understanding to intentionally bring the extraordinary into our own lives? What if we could become expert designers of experiences that propel the growth and transformation of others, whether we play the roles of leaders, educators, parents, artists, or friends? Becoming skilled at the art of transformation is to harness a life-changing tool that allows us, as Henry David Thoreau put it, "to live deep and suck out all the marrow of life." That is what this book is about.

[Buy the book](#)