Embracing the human touch in technology
NCWIT’s re:think magazine is a publication that focuses on change leadership specifically with respect to diversity, equity, and inclusion (DEI) within computing and technology fields and careers. In this issue, you will find stories to inspire you, articles to make you think, and recommendations to keep you learning well past your reading of this magazine.

To begin, I would like to take a few minutes to reflect on DEI and our mission of creating more inclusive organizations and cultures that ensure the people in them can thrive. Our futures, and the future of tech, depend on how we address the challenges we face today. With the rapid advancement of fields such as Artificial Intelligence and Quantum Computing, we have a responsibility to engage in conversations about these topics, as they enable us to understand the profound implications these technologies have on society, ethics, and the future of our world.

A core theme consistently explored in this magazine is the concept of equity. According to the online Collins Dictionary, two of the primary meanings of equity are 1) fairness, impartiality, justice; and 2) assets minus liabilities; net worth; capital.

Why do we use the word equity to describe fairness and also use it to describe assets minus liabilities? How can one word represent two things that seem so very different: a way to describe a person’s experience, and also a way to describe a financial position? Perhaps the connection is value. The word value builds a bridge between the concepts of financial equity and human equity. You can understand the financial value of an organization by looking at equity—by looking at an organization’s assets minus its liabilities. Similarly, you can learn about the human value of an organization by looking at the amount of fairness, impartiality, and justice you find within it. This fundamental notion of human value feeds an organization’s ability to drive financial value. Research shows again and again that organizations with a high degree of human equity, that place high value on justice and inclusion, are more likely to create greater financial equity.*

When I was young, I was told I had an “overdeveloped sense of justice and fairness.” I’m not exactly sure what was meant by that, but it is true that justice, fairness, and equity are core values for me. As such, at NCWIT we are prioritizing equity in all our work and striving to be equity-first. This requires a transformative shift in how we conceive of success, measure progress, and allocate resources, ensuring that these processes are responsive to the needs of all community members. However, an equity-first approach also requires us to re:imagine a world where everyone has the autonomy, resources, and support to craft their own narratives of success. I encourage you to read this magazine, and even to experience your own world with a renewed eye toward equity.

Where do you see a lack of equity? What steps do you think could be taken to improve equity? What can you learn, and what can you share that helps us achieve an equity-first future together?

TERESA HOGAN
NCWIT EXECUTIVE DIRECTOR AND CEO

With generous funding from Wells Fargo, NCWIT built and launched a new Media Hub in 2023. This one-of-a-kind site gives viewers the opportunity to explore multimedia content that inspires, educates, and encourages them in their change leadership activities. The Hub was intentionally structured to engage viewers in a wide variety of content types. From research-backed webinars to inspirational stories from our Aspirations in Computing Community, the Hub encourages exploration and engagement. In the first four months since launch, NCWIT had nearly 1,000 unique visitors.

https://ncwit.org/media
DEI

DEI

The DEI Identity Battle:
WHAT IS THE FUTURE OF INCLUSIVE LEADERSHIP IN THESE TURBULENT TIMES?

BY BRAD McLAIN
PhD. MDM: DIRECTOR OF CORPORATE RESEARCH AND AUTHOR OF DESIGNING TRANSFORMATIVE EXPERIENCES. PUBLISHED BY BARRETT-KOEHLER

THERE IS A BATTLE BREWING FOR THE IDENTITY OF DIVERSITY, EQUITY, AND INCLUSION (DEI). IT’S AN ESCALATING TUG-OF-WAR FOR THE LANGUAGE OF DEI, THE CORE VALUES AT THE HEART OF DEI, AND WHAT DEI MEANS TO EACH OF US ON A PERSONAL LEVEL, AND TO OUR COLLECTIVE NATIONAL IDENTITY. IN A RECENT MEETING OF CORPORATE LEADERS AT NCWIT, WE FOCUSED ON THE CRIMINALIZATION OF DEI IN MANY PLACES. A GROWING NUMBER OF STATES ARE INTRODUCING (AND PASSING) LEGISLATION TO ILLEGALIZE DEI PROGRAMS AND INITIATIVES IN SCHOOLS, UNIVERSITIES, GOVERNMENT AGENCIES, AND NOW EVEN REACHING INTO BUSINESSES AND CORPORATIONS. SCHOOL ADMINISTRATORS, UNIVERSITY PRESIDENTS, AND CAPTAINS OF INDUSTRY ARE NOW NEWLY GRAPPLING WITH THE CHANGING IDENTITY OF DEI. CORPORATE DEI OFFICERS ARE BEING LET GO, AND AN EMERGING BAND OF DEI LAWYERS IS SADDLING UP FOR SERVICE TO PROTECT ORGANIZATIONS AGAINST LITIGATION.
Diversity
SIMPLY SAID, IS ITSELF QUITE DIVERSE.

Luckily, human beings come replete with all these dimensions of diversity. And these dimensions of diversity are not monolithic, nor could they be. None of us is completely defined by any one of them. Rather, they are tightly correlated with each other and combine to create our sense of self at the personal level. Each of us lives at the intersection of our many identities. But for leaders, simply assembling diverse teams based on these dimensions is not enough. To unlock the many diversity dividends research has demonstrated, leaders must also activate that diversity. This is where the “equity” and “inclusion” parts of DEI enter—in the form of inclusive leadership. And it is where things get even trickier.

Why? Because certain constellations of those different identities make some of us more marginalized than others, creating a more complex social dynamic to navigate. For example, for leaders to effectively invite marginalized team members to fully show up with their diversity, give voice to their differing viewpoints, offer alternative perspectives from their experience, and risk rocking the boat, such things must be explicitly valued in the team’s culture. It also means leaders must effectively invite majoritized team members to reject business as usual, recognize and mitigate bias and “code-switching” pressures in the culture, and adopt other changes in how they work—and think.

Activating diversity in this way demands that leaders know how to construct team cultures that prioritize difference and belongingness at the same time. This is hard, but this is precisely where the rewards lie. Inclusive leadership of this sort is akin to the challenge of holding the protons of an atom’s nucleus together against their mutually repelling electric charges. How can this possibly be done? Answer: the strong nuclear force—one of nature’s four fundamental forces, which is ten million times stronger than any chemical bond. So it is with effective inclusive leaders. They are the strong nuclear force binding their teams together despite their differences and thereby unleashing their potential to create wonderful things together—and wonderful experiences as they do so. This is what successful DEI is all about.

All of this is hard enough given “normal” contexts. But we need more than inclusive leadership. We need transformative leadership to fight for the identity of DEI and rebuff the many attacks that are mounting against it.

Opponents are attempting to flip the intent of DEI on its head to justify their criminalization of it. They present arguments that co-opt the very language of DEI as a means to dismantle it, falsely declaring DEI efforts, as ironically “unequal,” preferential to certain groups, and discriminating against others. They simplify DEI to a transparent straw argument of reverse discrimination (mostly against white men as the majority group), and claim it to be unfair, prescriptive, and pro-minority—be it women, Black and Brown people, LGBTQ+, or anyone else in a category they disapprove of (notice that diverse identity categories they DO approve of are conveniently left untouched).

As such, opponents claim that DEI is antithetical to the very values it purports to uphold. Even worse, they say, it is yet another example of elitist hypocrisy, in line with the already successfully demonized critical race theory.

In my book Designing Transformative Experiences, I discuss what transformative leadership of this sort looks like. Among the most important elements is this: Transformation requires us to put our identities in danger: to be available for other perspectives; to inhabit those uncomfortable places of growth and change; and to put ourselves on the edge of discovery; and in so doing, invite others around us to do the same. DEI is a pathway to national greatness. It is a cause worthy of our best efforts. It is a celebration of who we are—all of us, not just some of us. And it is a promise of who we might become.

In the battle for the identity of DEI, let us not alter our language nor pander to the politicians who are putting it in their crosshairs. Let us instead double down on our efforts, confront the haters, vote, lead, and rightfully take our place as torchbearers for a more diverse and unified society.
Embracing the human touch in technology

BY SHARMAINE JACKSON
PH.D., NCWIT, DIRECTOR OF RACIAL EQUITY

IN THE EVOLVING WORLD OF TECHNOLOGY, discussions often revolve around rapid innovation, complex problem-solving, and continuous advancement. However, beyond the core of technical expertise, amazing breakthroughs can happen when individuals collaborate effectively, communicate ideas with clarity, and adapt to new situations with agility. It is here, in the dynamic interplay of talents, that noncognitive abilities shine. Far from being ancillary, they are central to successful outcomes in this dynamic field.

Noncognitive skills, also known as soft skills, are important for maintaining balance and sustaining strong interpersonal relationships. They include empathy, emotional regulation, effective communication, adaptability, collaboration, and creative problem-solving, and they form the basis of teamwork, clear communication, flexibility, and innovation.

In contrast to technical skills that are usually emphasized in technological education and training, noncognitive skills refine our behaviors and thought processes, playing a crucial role in personal and professional success.

As technology becomes increasingly intertwined with the everyday facets of our lives, it is crucial for industry professionals to develop noncognitive skills alongside their technical expertise. By fostering these skills, professionals can create products that are user friendly and accessible for diverse populations. The future of technology extends beyond what we can create. It must also consider how we are creating, and for whom. By cultivating noncognitive skills in the tech industry, we pave the way for an inclusive future—one where technology significantly enriches human life in profound ways.
Nurturing sustainable tech cultures

In the constantly evolving landscape of the technology sector, developing noncognitive skills is crucial for fostering inclusive and engaging environments where everyone feels valued and connected. These skills are the cornerstone of establishing tech cultures that are not just welcoming, but also nurture and enable the growth of diverse talents. Recognizing the importance of noncognitive skills is essential for the vitality, innovation, and sustainability of organizations.

As we look to the future, the technology industry will rely heavily on diversity of thought and experience as its greatest asset. Noncognitive skills serve as the key to tapping into this vast potential, keeping the industry at the cutting edge of innovation and progress. By embracing and developing these critical skills, tech organizations can secure a future in which they flourish through inclusivity, collaboration, and collective achievement.

Fostering inclusion through empathy and communication

Empathy and effective communication are foundational pillars essential to fostering an inclusive team culture. At the core of inclusion, empathy allows us to grasp and resonate with the feelings of another. It is the bridge that connects team members across diverse and global backgrounds. It ensures each person is recognized and valued for their distinct contributions. By broadening our empathetic reach, we encourage the development of products and services that are accessible and user friendly to a wide range of consumers.

Similarly, effective communication facilitates a free and respectful exchange of ideas to ensure that diverse voices on a team are heard and valued. This open exchange of ideas enriches the creative process and reinforces a sense of belonging and unity, as team members see their contributions shaping the collective achievements. Together, empathy and communication act as catalysts for innovation and inclusivity by transforming diverse viewpoints into a cohesive force that drives the development of impactful and inclusive technological solutions.

Building belonging through adaptability and emotional regulation

In the dynamic realm of technology, the fusion of adaptability and emotional regulation serve as a powerful driving force for innovation and inclusivity. Adaptability fosters an openness to new ideas and methods that are vital for integrating diverse perspectives into the workflow and product development. The openness to incorporate diverse perspectives enhances the creative process, leading to the development of cutting-edge and comprehensive products that address a wide array of user needs.

Simultaneously, emotional regulation, defined as the capacity to control and appropriately respond to emotions, ensures a supportive and positive environment. This skill is key to maintaining unity and a sense of safety among team members during times of stress or conflict. Collectively, these skills cultivate an environment conducive to innovation, where each team member feels valued and empowered to share their unique perspectives, fueling inventive and inclusive growth.

A vision for the future

As we look to the future, the impact of noncognitive skills on diversifying and enriching the technological field is vast. By valuing these skills, we widen the technology sector’s entry points, inviting participants from diverse backgrounds who contribute not only their technical expertise, but also their unique viewpoints, empathy, and creativity. For the essence of technology’s future lies beyond code and data: It rests in the human connections and insights that power imaginative and transformative innovations. Let us embrace this expansive view of technological excellence and pave the way for a future that is more inclusive and innovative, and embraces a human touch.
BridgeUP STEM > DISCOVERING THE OPPORTUNITIES THAT TECH MAKES POSSIBLE

Funded by the Helen Gurley Brown Foundation, BridgeUP STEM brings together a diverse community of Atlanta-area high school girls and non-binary individuals who are interested in pursuing computing careers and Georgia Tech College of Computing undergraduate mentors, research faculty, and graduate students. Through this NCWIT-Georgia Tech partnership, aspiring high school and undergraduate computing researchers are exposed to experiences, inspiration, and opportunities afforded by the program’s location at an elite research university.
Christine Carter, a first-year Computer Science major at Georgia Tech, with a journey marked by passion and discovery. Though her original ambition was psychiatry, her love for math and encouragement from her mother and teachers redirected her path towards technology. In her sophomore year of high school, a math teacher suggested she merge her interests in human behavior and technology. The following year, she was nominated to become a BridgeUP STEM (BUS) Scholar.

Reflecting on her time as a BUS scholar, Christine views it as a transformative experience. The program broadened her social network and eliminated any doubts about pursuing a CS degree. Hands-on experiences helped her overcome impostor syndrome, particularly as someone more comfortable with movies and books than the latest gadgets.

BridgeUP STEM revealed how technology could improve lives, sparking Christine’s interest in human-computer interaction (HCI). During her second year in the program, she participated in a research project focused on user-centric tech products. She emphasized, “What does this person actually need? Look at their home, look at their life: What do they need specifically and equitably?”

Community events further reinforced this approach. Christine shared an app developed during her research, gaining real-world insights into the challenges people face with new technologies. “The person who’s making it has to be considerate and unbiased. If I can be that person for a change, then of course I’m going to do it,” she said.

Christine credits the program with helping her understand technology’s flexibility: “You don’t have to be in a box with technology. You can do whatever you want.”

“YOU DON’T HAVE TO BE IN A BOX WITH TECHNOLOGY. YOU CAN DO WHATEVER YOU WANT.”

EMPOWERING THE FUTURE

CHRISTINE CARTER AND BRIANA MARKS EXEMPLIFY THE TRANSFORMATIVE POWER OF PROGRAMS LIKE BRIDGEUP STEM. THEY ARE NOT JUST LEARNING TECHNOLOGY; THEY ARE LEARNING TO USE IT AS A TOOL FOR SOCIAL GOOD. BOTH YOUNG WOMEN ARE POISED TO MAKE SIGNIFICANT CONTRIBUTIONS, DRIVEN BY A COMMITMENT TO INCLUSION AND EQUITY. AS THEY CONTINUE TO EXPLORE THEIR PASSIONS AND DEVELOP THEIR SKILLS, CHRISTINE AND BRIANA STAND AS INSPIRING FIGURES FOR ANYONE LOOKING TO BRIDGE THE GAP BETWEEN TECHNOLOGY AND HUMAN-CENTRIC SOLUTIONS. THEIR STORIES UNDERSCORE THE IMPORTANCE OF SUPPORTING PROGRAMS THAT FOSTER DIVERSE TALENT AND EMPOWER THE NEXT GENERATION OF TECH LEADERS.

BRIANA MARKS
CHAMPIONING AI ETHICS AND UX/UI DESIGN

Briana Marks, a third-year Computer Science major with a Pre-Law minor at Georgia Tech, is a dynamic blend of passions—reading, fashion, running, painting, and nature. Her academic interests include AI ethics and UX/UI design.

BridgeUP STEM discovered Briana as she sought ways to contribute at Georgia Tech’s College of Computing. Invited by her boss, who played a key role in the program’s launch, Briana transitioned from behind-the-scenes support to assisting in teaching AI concepts and building relationships with scholars.

Teaching STEM concepts to high school students was rewarding, but Briana was most inspired by the personal connections. Whether listening to their high school drama, watching their TikToks, or answering questions about college, these experiences deepened her understanding of computer science and led her to switch majors. She later became a Helen Fellow, gaining valuable CS/AI research experience under Dr. Judith Uchidiuno.

For Briana, witnessing the spread of STEM education and encouraging underrepresented groups to explore STEM careers is incredibly valuable. As an Atlanta native, familiar with the high schools the scholars come from, she wishes she had similar opportunities. “I know that when I was in high school, I would have loved to have been a part of a program like this,” she reflects.

Through her BUS experience, Briana learned the importance of being faithful in small tasks, which led to bigger opportunities like teaching a class and becoming a Fellow. She is particularly interested in AI’s societal impact, especially on underrepresented groups, and aims to ensure ethical considerations shape AI development.

“THE OPPORTUNITIES FOR THOSE PARTICIPATING IN THIS PROGRAM AS A FELLOW, SCHOLAR, OR RESEARCH MENTOR ARE MANY. THOSE FACILITATING THIS PROGRAM WILL NEVER FULLY KNOW HOW MANY PEOPLE IT IS IMPACTING.”

She looks forward to seeing how participants apply their knowledge to their future endeavors and the broader impact on the world.
Research has shown that women from races and ethnicities historically underrepresented in computing are less likely to choose tech majors and continue to pursue their dreams. Watch their stories via the NCWIT Media Hub, and prepare to be inspired!

NCWIT ASPIRATIONS IN COMPUTING (AiC) was created to address barriers and support historically marginalized students in their pursuit of technology-related passions and dreams. At its heart is the Community of nearly 30,000 women, genderqueer, and nonbinary individuals. In 2023, NCWIT launched an initiative to highlight Community members and inspire others through their stories. The inaugural #AiCStories Ambassadors are forging their own paths while paving the way for the next generation in technology and computing. Although their 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. Yet the Ambassadors agreed: the AiC Community was vital in helping to combat feelings of difference, isolation, and imposter syndrome. Whether they joined in college or previously won an AiC High School Award, the uplifting network has been crucial to their personal well-being and professional successes.

Meet the FUTURE of tech

Introducing #AiCstories Ambassadors

#AiCStories are generously funded by Match Group
AIC STORIES AMBASSADOR

Doreen Joseph

HOMETOWN:
NAIROBI, KENYA
AND D.C., MARYLAND, VIRGINIA

CURRENTLY:
UNIVERSITY OF CALIFORNIA, DAVIS —
DAVIS, CALIFORNIA

Doreen’s journey is awe-inspiring. After relocating from Nairobi, Kenya to the DMV area at age eight, she recalls a childhood being mesmerized by STEM: “My favorite school assignments were always the ones that required using a computer, and every time my parents had a computer issue, I was always ready to figure it out! Funny enough, my parents still call me with computer questions, even though we’re on different coasts now,” says Doreen. Additionally, she also inherited her dad’s love for math and learned Algebra before 6th grade—which she credits for giving her a solid educational foundation.

If that weren’t impressive enough, Doreen would become the first Black woman to hold a Master’s in Computer Science from the University of California, Davis, as well as a Bachelor’s of Science in Cybersecurity Engineering with a minor in Math from George Mason University. Currently, she is a Ph.D. candidate in Computer Science at UC Davis, with an expected graduation year of 2025.

Although it may seem that her career path was prescribed, it was allowing herself to explore other interests that landed her in cybersecurity. Originally selecting an IT major, as it was both marketable and fun to her, a meeting with her academic advisor changed the course of her career: “She recommended the cybersecurity engineering program. The funny part is I had looked at that program before and then decided the requirements were too difficult for me—I chose the easier major that I thought that I could do. After talking with her and receiving her encouragement, I made the decision to change my program in my first semester. I’m really glad I did that, because I was in a program that was challenging enough for me. It also allowed me to explore different things and delve into research, things that I didn’t think I had the ability to do beforehand.”

To her, exposure and representation matters, citing Dr. Renetta Toll, Vice Chancellor of DEI at UC Davis, as her mentor: “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 empower students who are underrepresented and marginalized in STEM to take their place.”

After earning her Doctorate, Doreen plans to pursue a research career in the security field—and continue to lift others as she climbs!

HER ADVICE TO HER YOUNGER SELF:
“Believe in yourself more and just continue exploring what you’re interested in!”
Gratefully, the Chicago born, raised, and educated Latina didn’t have to look far for her community—she credits her mom as her biggest supporter and first technology advocate, and her cousin as her greatest inspiration. When her school’s STEM program didn’t offer computer science courses, her mom found two programs near their home so Emily could pursue her interests, The IIT Computer Discovery Program and the UIC Girls Who Code Program, an NCWIT K-12 Alliance member organization, changed the course of her life: “Being surrounded by so many girls who were so funny and smart inspired me to keep coming back.” Her cousin, a previous NCWIT AiC High School Awardee, invited Emily to attend a Chicago meet-up with her. From that day on, Emily was fully immersed in the AiC Community, eventually receiving both the National Honorable Mention and Affiliate Winner designations for the AiC High School Award in 2020. “I actually just finished my first internship, right out of freshman year, at Amazon, with the Amazon Future Engineers scholars. That was an amazing opportunity. I thank NCWIT and AiC for the recognition and support they gave me to elevate myself and make me shine in that application. Without it, I honestly feel like my [internship] application wouldn’t have been as strong as it was.”

Emily Mendoza’s purpose is clear: “I want to take my experiences in hardware and software, become a jack of all trades, and then share my experiences with other Latinas in STEM to really help uplift them, because we don’t have as much representation.” Emily will complete another internship with Amazon this summer. Post graduation, she hopes to find a role that allows her to not only work with hardware and software, but also to continue teaching: “I want to be an example of yes, you can. Si se puede!” says Emily Mendoza. She’s well on her way!
While most four year olds are just beginning preschool preparation, Santoya Martinez was already far exceeding cognitive and educational milestones. What began as homeschooling quickly transitioned to her attending the boarding school on the Navajo Nation Reservation: “The only place was a boarding school on the reservation, so my first kindergarten experience was taking the bus a few hours away. I would wake up pretty early and then go to Chika boarding school. I would go there every morning, and it was four-year-old little me with my sister,” recalls Santoya.

Santoya’s interest in technology began at that boarding school, where she learned how to change the color of the Google background on the school desktops using the inspect feature. Her middle school self was soon building, programming, and racing robots with New Mexico Mathematics, Engineering, and Science Achievement (MESA) club, a pre-college program that prepares students for college and careers in STEM fields through regional and statewide academic competitions, workshops, and leadership development projects. To really maximize her potential, she transferred from the local public high school to a dual credit-specific one to take a computer science class. It was here where she truly excelled—winning a coding award in the 2018 Student Technical Institute located on the University of New Mexico main campus in Albuquerque—and was encouraged by her CS teacher to apply for the 2019 NCWIT AiC High School Award.

In 2022, Santoya presented her research on bringing computer science curriculum into K-12 schools at the Tapia Conference. She joined the New Mexico Computer Science Taskforce from the state’s Department of Education, after attending the AiC High School Award ceremony and meeting a future colleague. “My mom joined me; especially since she’s a Navajo teacher, she was able to implement some of the stuff that they weren’t thinking about. On the Navajo reservation, not a lot of people have electricity or water. I was like, what about the people that are excluded? So, she brought that perspective, and I thought that was really nice,” remembers Martinez. Recently, they were able to submit legislation to the Capitol Building in Santa Fe and secured micro-credential funding that aims to allow educators within K-12 schools the ability to receive credentials to teach CS in their classrooms.

Although Santoya Martinez’s collegiate journey will conclude this year when she graduates with a bachelor’s degree in computer science, she’s just getting started! She hopes to explore a career in data and information science while continuing to bring computing equity to the Navajo Nation Reservation and New Mexican communities.

EARLIEST TECHNOLOGY MEMORY:
“My parents had their own desktop at home, and it was one of those old Macintosh [computers]. My dad used to make graphic designs on [the computer with] Microsoft paint and would teach us. I was like, ‘Oh, this is so cool!’”

W
Not many soon-to-be college graduates secure a job before even walking across the stage. Alexis Wang has—this summer she will begin her career as an entry-level software engineer at Seatgeek—and it’s a testament to her commitment to her passion.

Relocating to California from her native Brooklyn, New York, for college was courageous, but it wasn’t her first audacious move. When her high school didn’t offer STEM classes, she commuted into Manhattan as a sophomore to attend the BridgeUP STEM program at the American Museum of Natural History. “I was basically one of like three people who wanted to go into computer science. So it was very hard for me to get any opportunities inside school, and I had to go outside of school to look—and even then it was hard for me to find people to ask,” recalls Wang. She learned Python, and soon after landed her first internship. As a research intern, Alexis measured the land cover change in the Solomon Islands using machine learning in R. In addition, she worked at the museum as a Peer Tutor for incoming interns, and conducted her own projects as a part of The Knowledge Society (TKS), a human-accelerator program where she learned about new technologies and developed professional skills.

Because of this, as a senior she was an Honorable Mention recipient of the AiC High School Award. “After attending the award ceremony and joining the community, I felt supported, proud, and capable of success in computing and technology.”

**HER ADVICE TO HER YOUNGER SELF:**

“There’s going to be a lot of ups and downs at times, but if you stick with it, things will pay off. Even if it doesn’t seem like it right now, there is a place for you in technology, and at the table, and there always is. If there’s not, we’ll make one.”

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,” says Alexis. Throughout Wang’s journey, she has learned the importance of following her own path. “I think having that non-traditional path or having the courage to do whatever it is you want that you feel more comfortable with is something I learned, and it’s something I’m still trying to do today,” she says. The current dual English and Computer Science major believes in pursuing what you like, not comparing yourself to others. “If you do that, you’re always losing against yourself, and you just create this impossible battle with yourself where there’s no situation where you can succeed.” By remaining steadfast to her dreams, she’s been successful on both the East and West coasts. This summer at Seatgeek and beyond, Alexis Wang looks forward to delving deeper into AI and using it to better the world!
ACHIEVING DIVERSITY, EQUITY, AND INCLUSIVITY GOALS AMID WORKFORCE REDUCTIONS

During the pandemic, employees lost their jobs in disproportionate ways. White men were the least likely to lose their jobs, while Black and Hispanic workers in the United States lost their jobs in the highest proportions. Women lost more jobs than men, and mothers were hit the hardest when they either lost or left their jobs in order to take over teaching their own children. Previous recessions have similarly shown that workforce reductions are not equitable. Tech layoffs in 2022-2024 are trending in the same patterns: women and people with they/them pronouns have been laid off at disproportionately higher rates than their male counterparts. In the face of new waves of workforce reductions, we want to know:

2. USA Facts (2021, February 22). “Which workers were most affected by job loss in 2020?” https://usafacts.org/articles/which-workers-were-most-affected-by-job-loss-in-2020/

HOW CAN COMPANIES MAINTAIN AN INCLUSIVE CULTURE IN THE FACE OF WORKFORCE DOWNSIZING?
Most tech companies have worked hard to improve diversity and inclusivity in their workforces in recent years. So what happens when layoffs change the demographic landscape of a company? If reduction decisions are made without using inclusivity as a lens, companies risk depleting the rich and diverse organizational culture that is only possible when employee differences are embraced. What message does it send if certain segments of a workforce are let go, while others are retained?
DEN MONDEJAR, A DEI RECRUITING SPECIALIST, explained that tech layoffs impact underrepresented groups more than other employees. Most organizations use seniority or rank as a framework for making reduction decisions. However, because many organizations have just recently begun incorporating a more diverse workforce, employees from marginalized groups may also be the newest employees. Women and BIPOC are more likely to be in lower-ranked positions as well. As such, using seniority and rank as justification for reduction decisions can greatly impact the overall makeup of the company.

Research has well documented the tendency of hiring managers’ inclination to hire people they believe are most like themselves. Unfortunately, managers are also more likely to try to retain people they perceive to be similar. Employees with marginalized identities are more likely to be different from the people making reduction decisions, and as such are more likely to be cut. This kind of bias is subtle, but it enters into all organizational decision-making, including layoffs.

Succumbing to implicit bias in layoff decisions can decimate DEI progress, and reducing diversity and inclusion in organizational culture can be detrimental. We know that a diverse workforce is beneficial for all employees. Inclusive workplaces have:

- Higher Patent and Innovation Rates.
- Better Financial Performance.
- Healthier Team Dynamics.
- Higher Productivity Rates.
- Better Success at Staying on Time and Under Budget.
- Improved Employee Performance.
- More Qualified Employee Pools.
- Better Connections with Their Customers.

In addition, savvy organizational leaders know that companies with inclusive cultures are ranked 75% higher in “Best Places to Work” metrics. A non-inclusive or hostile organizational culture does the opposite, and will likely result in increased company turnover, disengaged employees, and chronic absenteeism.

Creating inclusive cultures is critical to retain a positive and productive work environment.

All employees are affected by layoffs. Research shows that layoff survivors often experience a deep decline in job satisfaction, engagement, innovation, and performance. They also may feel resentment, have increased job responsibilities, and be much more likely to leave.

Thinking about the imperative to create and nurture diverse, equitable, and inclusive work cultures, especially cultures with layoff survivors, we gathered some tips to achieve and maintain a great culture, even in the face of downsizing.

Use this list as a way to get started: select a few ideas to focus on and implement based on what would help your team the most.

**Promising Practices:**

- **Communicate transparently** about layoff decisions and about how you want to maintain a positive workplace culture.
- **Evaluate the company’s representation** to make sure that diversity is included/retained at all organizational levels.
- **Remind employees that they are important** to the company. Survivor syndrome is an impactful phenomenon, and remaining employees must hear that they are valued.
- **Ask about and listen** to employee concerns about company culture.
- **Provide training for new roles,** especially if people have taken over new responsibilities or tasks for employees who left the organization.
- **Implement mentoring programs.** Remember that employees have different work-life and career development needs at different levels of their careers.
- **Provide remote, hybrid, and flexible work options.**
- **Emphasize collaboration over competition to enhance team dynamics.**
- **Communicate that the company values difference, and the unique strengths of all employees.** Create opportunities for diversity and inclusivity training where people can learn about new concepts and terminology in a safe environment.
- **Create an action plan specifically to implement inclusivity goals.**
- **Integrate inclusivity into everyday operations.** It has to be part of the way people communicate, interact, run meetings, give assignments, etc., every single day. Communicate inclusively, avoiding harmful words, ensuring equal turn-taking in meetings, etc.) Build empathy into the company culture.

Some of these promising practices are easy to implement—anyone can look at demographics to see if an organization has representation at all ranks. However, some, such as “build empathy,” might be accomplished in a number of ways. For the more ambiguous suggestions, consider a team-building meeting to discuss how to weave these concepts into the company culture. Employees likely have some great ideas as to which suggestions are most important.

Perhaps the most important suggestion is to prioritize inclusivity in all discussions about workforce reduction. Make sure DEI goals are on the table before any decisions are made that would negatively impact inclusivity goals.

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**RECOMMENDED READING**

**BE A REVOLUTION: HOW EVERYDAY PEOPLE ARE FIGHTING OPPRESSION AND CHANGING THE WORLD – AND HOW YOU CAN TOO** by Ijeoma Oluo

The #1 New York Times–bestselling author of So You Want to Talk About Race and Mediocre is sharing an eye-opening and galvanizing look at the state of anti-racist activism across the United States.

“Enlightening profiles of people who’ve put their anti-racist values into action. Readers will find inspiration and clarity.” - Publishers Weekly

In Be A Revolution: How Everyday People are Fighting Oppression and Changing the World – and How You Can, Too, acclaimed writer, speaker, and Internet yeller Ijeoma Oluo shows how people across the nation are working to create real and lasting positive change in powerful systems — like education, media, labor, health, housing, policing, and more. By highlighting what people are doing for intersectional racial equity, she illuminates various entryways to change. The book aims to be educational and inspire restorative action at this important moment in history. Print, e-book, and audio versions are available online from Harper Collins and Amazon.

Meet ELVIS – the Experiential Learning Variables & Indicators System methodology outlined by Brad McLain, PhD and NCWIT Director of Corporate Research, in his book, Designing Transformative Experiences: A toolkit for leaders, trainers, teachers, and other experience designers.

“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.” - Brad McLain, in Designing Transformative Experiences

By recasting leaders as experience designers, the book explores how transformational experiences are made, as well as the enormous potential they have to transform lives and empower change. The book is available in all formats from Berrett-Koehler Publishers, Amazon, and booksellers online.

Educators and mentors who want to help students explore how empowering computing can be will enjoy this illustrated page-turner. The graphic novel Power ON! follows a group of diverse teens as they discover tech can be fun and creative, but isn’t always neutral.

“Make sure to share it with a young person in your life.” – Melinda French Gates

The book was co-authored by Dr. Jane Margolis, at the University of California - Los Angeles (UCLA), and Dr. Jean Ryoo, director of the X Center at UCLA, and it comes with free classroom resources developed with the Computer Science Teachers Association (CSTA). The book asks readers to consider: What are ways technology creates social good as well as harm? Can robots be racist? Why does underrepresentation matter? What can be done to change it? – and more! Paperback copies can be purchased through the MIT Press Bookstore and online. An e-book is also available for download.

Note: This book also made the Texas Maverick Graphic Novels Reading List in 2023 and was named one of the Favorite New Books of 2022 for Young Adults” by Social Justice Books

Building on the foundation of his first book, Reboot, executive coach Jerry Colonna – previously a member of the NCWIT Board of Directors – expands his repertoire of thought-provoking questions in Reunion: Leadership and the Longing to Belong.

“Only through radical self-inquiry can we come home to ourselves and others and, in doing so, create systemic belonging—homes—for everyone.” Colonna writes.

While sharing his journey, Colonna invites leaders to reunite with disowned parts of themselves and to confront both myths and truths about their ancestors. The necessary first step, he contends, is for those who hold power to see themselves clearly. Then, the vital second step is to create inclusive and welcoming spaces where people feel recognized as having a place. This reckoning can shake accepted definitions of leadership, success, and value, and help leaders nurture and support those they are privileged to lead. The book can be purchased through Harper Collins, Amazon, or from booksellers nationwide.
TeachEngineering is now a part of NCWIT.

TeachEngineering is a free resource that helps educators learn about engineering, the engineering design process, and provides access to a digital library that features hundreds of lessons and activities that use low-cost and readily accessible materials to introduce key concepts to students.

Engineering and the engineering design process is really connected to everything we do—solving problems collaboratively, testing and retesting ideas. There are curriculum connections to Science, Math, Computer Science, and really any subject you teach in school.

teachengineering.org
The NCWIT Pioneer in Tech Award recognizes technical women whose lifetime contributions have significantly impacted the landscape of technological innovation, amplifying the importance of capitalizing on the diverse perspectives that girls and women can bring to the table. Pioneer in Tech Award recipients also serve as role models whose legacies continue to inspire generations of young women to pursue computing and make history in their own right. Dr. Erna Schneider Hoover joined Bell Telephone Laboratories at the dawn of computer enterprise as one of few women in a field largely dominated by men.

Among her many accomplishments, she worked on Number 1 ESS (Electronic Switching System), a highly reliable electronic computer to control or “switch” telephone calls. She wrote the specifications for the instruction set for the computer and the specifications for the operating system. Later, she invented an algorithm enabling the computer to cope with telephone traffic overload. In 1971, Nokia Bell Labs’ Dr. Erna Schneider Hoover earned one of the first software patents ever for her Stored Program Control system, which allowed call centers to handle massive amounts of traffic. As a result of this patent, she was inducted in the National Inventors’ Hall of Fame. She was promoted to Technical Supervisor, then Technical Department Head at Bell Labs, and was the first woman to hold either position.
THE IDEA YOU DON'T HAVE IS THE VOICE YOU HAVEN'T HEARD.