

Quarterly review N°6 — 2022







Girls Who Code







CARVING OUT A TECH CAREER PATH FOR WOMEN



Dr. Tarika Barrett is a STEM education champion who began her career as a community organizer and educator. She joined Girls Who Code in 2016, leading flagship Summer Immersion Programs and Clubs Programs, and drove the organization's international expansion. As CEO, she focuses on creating opportunities for women in STEM fields and spearheads initiatives to close the gender gap in entry-level tech jobs by 2030.

The Capgemini Research Institute spoke to Tarika about inspiring, educating, and equipping girls and young women to pursue a career in tech, expanding the pipeline of women entering the tech sector, and creating an inclusive environment that supports growth and longevity.



ADDRESSING THE GENDER GAP

Could you explain the extent of the gender gap in technology globally?

— Only 26% of computer scientists are women, with Black and Latinx women making up 5%. Many factors contribute to the gender gap in STEM, affecting girls and young women at every stage of their tech journeys. One critical early moment is known as the "middle-school cliff"; before girls are ten years old, they have already internalized cultural touchstones that dictate who belongs in tech and who doesn't.

More than half of our students at Girls Who Code come from historically underrepresented groups. They are motivated to learn but, in their previous environments, may have been denied the resources or opportunities given to their more privileged peers. Their circumstances might oblige them to work multiple jobs while carrying a full load of college coursework, perhaps even fitting in homework and study around caregiving responsibilities.



Dr. Tarika Barrett CEO, Girls Who Code



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Computer science is one of the fastest-growing professions in the country, expected to grow 11% by 2029, adding another 500,000 new jobs to our economy. We can't afford to leave a single ounce of tech talent on the table. Organizations must make tools and resources democratically available and create inclusive hiring practices and work environments for women – particularly young women of color. This is the only way that they will have a chance of overcoming these barriers.

What is the root cause of the limited representation of women in technology roles in the private sector? How is Girls Who Code helping to address this?

— We understand the importance of creating an accessible pipeline into STEM for girls and young women. Accordingly, we've developed programs that start in elementary school and continue to support candidates through college and throughout their careers. We engage students at a young age to build their interest in STEM and inspire our high-school-aged students to pursue computer science in college, encouraging them to continue with their tech educations.



Our Technical Interview Prep program helps students develop the skills they need to succeed in their first technical interview and advance their careers. We've implemented workforce-development initiatives like the all-virtual Hiring Summit, which connects our students with top tech companies. Additionally, we've launched Work Prep to support tech pathways for college-aged women; it was imperative to ensure that our alumni and other young women were given the opportunity to enter the sector. Our Girls Who Code programs have taught 500,000 girls computer science. As a result, we now have 115,000 workforce and college-age women excited about the

WOMEN IN THE TECH WORKFORCE



possibilities of STEM.

Why does a significant share of women graduating with degrees in science and engineering leave the tech workforce?

- The technology sector still exhibits too many characteristics of archaic work culture: perfectionism, power hoarding, and paternalism. These traits have an enormously negative impact, leading to burnout among young girls and women as they strive to distinguish themselves in a system that is prejudiced against them, causing them to feel alienated or powerless in their roles. Additionally, there is a disconnect between organizations' perceptions of the level of inclusivity they are offering and that which young women in the workforce experience. HR leaders are almost twice as likely (45%) to report positively on inclusive workplace practices than are women (25%) in the tech environment.



What can leaders and organizations do to promote diversity and narrow the gender gap?

— The data shows leaders in major tech organizations

must broaden the scope of their hiring practices. Most employers gravitate towards graduates of four-year institutions or Ivy League colleges; however, this narrow, stereotypical approach alienates the strong flow of equally wellqualified and motivated talent from community colleges and state schools. Such a limited definition of success perpetuates a cycle that shuts out historically

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marginalized students. These tech companies not only deny opportunities to some of the most gifted students, but they are also denying themselves a much-needed injection of diversity.

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It isn't enough simply to fill diversity quotas; many workplaces must address a toxic work culture that alienates young women and people of color. We encourage companies to reflect deeply on their practices and how they might be alienating these groups of people – or what they are doing to prevent them from being hired in the first place. Companies must keep an open mind regarding reassessing and remodeling hiring and promotion practices that hinder women in general, and women of color in particular, from competing for leadership roles and holding down tech positions.



COUNTRIES IN EASTERN EUROPE AND CENTRAL ASIA HAVE A HIGHER PROPORTION OF WOMEN GRADUATING WITH STEM DEGREES, INCLUDING KAZAKHSTAN (31.6%) AND GEORGIA (38.7%)."

Which countries are pioneering women's access to STEM fields and closing gender gaps in the workforce? Which policies and practices are they using to promote change?

— According to research conducted by the World Bank, countries in Eastern Europe and Central Asia have a higher proportion of women graduating with STEM degrees, including Kazakhstan (31.6%) and Georgia (38.7%). Technology and innovation are an important part of Europe's economy and there's a strong flow of students wanting to study technology. However, the proportion who are women remains comparatively small, with only around 25% of IT professionals being young women. In response, UN Women and the Business and Technology University created a free Coding School for Women, which I believe has contributed significantly to the increase in women STEM graduates in countries like Georgia.

In 2021, Statista published a report showing that, in Georgia, 55.6% of STEM jobs were held by women, with Mongolia, Kiribati, the Dominican Republic, and Cambodia making up the top five countries employing the highest shares of women in STEM. This positive trend will continue if more organizations commit to getting young girls and women involved in STEM.



EMBRACING THE NEW NORMAL

What does the future of women in tech look like?

— The future of tech should reflect the diverse talent interested in pursuing a tech career, as exemplified by the many young women who have come through our Girls Who Code programs. Women such as Karina Popovich, who founded Makers for COVID-19, an initiative to 3D-print PPE materials for medical professionals on the front line of the fight against COVID-19. Trisha Prabhu attracted investment of \$100,000 on Shark Tank (a US television program where entrepreneurs compete for funding and mentoring from established businesspeople) for her anti-bullying app. And Kamille Tipan created Aduenam, a website that raises awareness of the adverse effects of anti-immigration policies.

These young women show how the skills students learn in our programs can be used to solve real problems facing their friends, their communities, and the world. If we create a tech workforce that makes space for them to thrive, that's exactly what they will do.

What would be your advice to girls, women, and nonbinary students who aspire to pursue a career in tech?

— "Be brave, not perfect." Some students are striving so hard to be perfect while simultaneously being so afraid of failure that they stymie themselves. When women strive to be brave rather than perfect, they learn that failure's okay and that it might even be necessary to go beyond what's comfortable to make real progress.







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"Be brave, not perfect."

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