


ACTION OPPORTUNITIES



You will find action opportunities throughout chapter 03 of the Rebooting Representation report. Look for the  symbol. These action opportunities can make a significant difference for women in tech and are well-suited to company involvement. Use them as thought-starters for designing your strategy. See chapter 05 of the report for more on how to determine which opportunities are right for your company.

ACTION OPPORTUNITY

Fight stereotypes around women and computing (p. 45)

By fighting stereotypes, companies can shift who girls and women—as well as their friends, families, and teachers—perceive are the types of people who can thrive in the tech sector. Below are some of the ideas for stereotype-fighting initiatives companies could implement. Google has gone a step further and worked alongside Hollywood and the media to change how the tech industry is portrayed. Danielle Brown, chief diversity and inclusion officer at Google, shared that “we’re thinking about the representation of women and underrepresented groups in media. When computer science or engineering is portrayed in a movie or TV show, how do we make sure it’s an inclusive portrayal?”

REEXAMINE PRODUCT OFFERINGS TO ENSURE MEN ARE NOT THE DEFAULT

Companies can take a close look at any avatars, characters, or other potentially gendered representations they use to ensure they avoid accidentally sending a message that a male character is the default and women are atypical. Make sure that gender-neutral options are not more closely aligned with the needs or interests of men than women.

REVIEW COMMUNICATIONS MATERIALS TO ENSURE THEY ARE GENDER INCLUSIVE

Take a second look at marketing materials, advertisements, recruiting materials, and other published communications to ensure women, and women of color, are well represented.

TRAIN EMPLOYEE VOLUNTEERS

According to the original research conducted for this report, 94 percent of companies surveyed reported that their employees volunteer in gender diversity-related programs. Train employee volunteers on best practices for reflecting and promoting an inclusive tech culture in their interactions with students, including showing that many tech workers do not fit the stereotypes they may have heard. For more on these best practices, see the building blocks in chapter 04 of the Rebooting Representation report.

SHIFT REPRESENTATION ON PANELS AND AT CONFERENCES

Companies can consider the message they are sending by the events they participate in. For example, avoid sending any representatives to speak on all-male panels.⁷⁵ Reconsider the use of promotional models, sometimes known as “booth babes,” who use their bodies to promote tech companies or products.



Create more inclusive experiences of computing for girls in middle and high school (p. 46)

For now, girls remain far less likely than boys to take the Advanced Placement test in computer science.⁷⁸ A core part of a tech company's strategy could be enabling and encouraging more middle and high school girls to get involved in computing for the first time by expanding access to computing, especially at schools that do not currently offer it. To support access to programs that will attract and support girls, see the checklist on p. 57 in the Rebooting Representation report.

"Among younger children, girls tend to be equally interested in computing. But that peters off toward middle school." — Lucy Sanders, CEO and cofounder, National Center for Women and Information Technology (NCWIT)

WORK WITH LOCAL SCHOOL DISTRICTS

Expand the number of schools offering computing classes that actively work to recruit girls and provide them with the critical elements they need to thrive—covered in chapter 04. Engage families as champions of computing for girls. Support programs with a track record of diverse participation in the schools, such as Exploring Computer Science.

INFLUENCE MAJOR CHANNELS OF INFORMAL EDUCATION

Invest in computing education for girls in programs where millions of girls are already enrolled, such as 4-H, Campfire, Girl Scouts, Head Start programs, and Boys and Girls Clubs. Companies can also work with the programs they fund or partner with—particularly the coed programs—to ensure their offerings are inclusive and effectively serving girls. Informal education settings can also use tech-company-employee volunteers to provide role models and teach students.

SHAPE THE DIALOGUE WITHIN SCHOOL DISTRICTS

Bring a corporate voice into discussions about the expansion of inclusive computing education, underscoring its importance for the health and growth of the US tech sector. Support efforts to push for mandatory computing courses in high school and earlier, and support schools in making use of inclusive curricula.



Redesign the experience of college students majoring in computing (p. 47-48)

Tech companies can help grow the number of women studying computing in college. Given that college-age women are so close to entering the workforce, this change will quickly impact the talent pipeline from which tech companies recruit. “The most bang for your buck when it comes to computer science programs is if you focus on the transition when young women first get to college.” – Maria Klawe, president, Harvey Mudd College

WORK WITH BOTH TWO- AND FOUR-YEAR COLLEGES

Look beyond “the usual suspects” of elite schools to create inclusive environments at colleges of all types, creating a much deeper pool of talent and finding innovative minds wherever they are. Support and partner with institutions that show leadership commitment to commitment to doubling-down on increasing gender diversity in computing. These changes could include separating intro courses for those with programming experience and those without; using intro class curricula that introduce students to the range of applications for computational thinking; creating a deeper sense of community; and providing early research or internship opportunities.

OFFER A SIGNIFICANT CASH AWARD TO INCLUSIVE COLLEGES

Reward those institutions that are able to substantially increase gender diversity among computing majors. A prize program could incentive many colleges to work to implement initiatives that have a track record of success and attempt new innovations, ultimately rewarding those that deliver real results.

SUPPORT ADDITIONAL COMPUTING TEACHERS AND PROFESSORS

There is a national shortage of computing faculty.⁸⁰ Tech companies should consider funding faculty positions at schools that are willing to split out their introductory courses based on whether students have significant previous experience.

CREATE AN EARLY INTERNSHIP PROGRAM

Welcome women for a summer or winter internship during their freshman year. Such programs help keep women committed to studying computing.⁸¹ Ensure that women in the internship are in a supportive atmosphere with a cohort of peers to help build a community and sense of belonging.

SUPPORT COMMUNITIES FOR COLLEGE-AGE WOMEN

Fund both national and local conferences for women in computing. Support women-focused student groups, including chapters of national organizations. Work with colleges to support efforts to increase community among women computing students—both those who have already declared a computing major and those who have not.



Create connections among programs so women and girls move directly from one tech experience to the next (p. 49-50)

Building direct bridges between experiences will increase the odds that girls keep developing their interest, proficiency, and persistence in tech. If they do not clearly see their next step in computing, they will move on to other focus areas. As Daisy Auger-Dominguez, the former senior vice president of talent acquisition at Viacom, shared: “The next frontier this field needs is developing a platform that allows women and girls to tap into everything that already exists, because now there is nothing to connect one experience to another.”

SMOOTH THE TRANSITIONS BETWEEN PROGRAMS

Companies can work with all the programs they fund to find suitable next steps for girls when they complete the programs. Encourage programs to develop relationships with each other to routinely and smoothly hand off girls from one experience to the next, keeping girls engaged along the tech journey.

SUPPORT THE DEVELOPMENT OF A PLATFORM WHERE GIRLS CAN SEE ALL OF THE PROGRAM OPPORTUNITIES AVAILABLE TO THEM

Figuring out what next step in computing is right for an individual girl can be daunting, especially for those coming from underresourced communities. Create a tool where girls and their families can easily see the options that are available, for both in-person and online programs. A “smart” model could be an AI-informed tool that personalizes recommendations for girls and women based on their preferences, previous computing exposure, life stage, and location. This tool would help put together a set of experiences that link to each other and ultimately into the tech sector.

PLUG THE GAPS BETWEEN EXISTING PROGRAMS

Use a mapping of current programs to figure out where additional bridges and connective tissue are needed beyond what currently exists in different schools or cities. Recruit programs from other geographies to open chapters locally to fill a gap. Create portals into the tech sector itself by linking programs for older girls or women to internships and apprenticeship programs.

SUPPORT EXPANSION OF COMMUNITY GROUPS

Connect girls and women who are either current students or alumnae of any computing program. The community provides a forum for women and girls to connect with one another, provide each other with advice and tips about the tech journey, and connect with voices in the industry.



Build knowledge of which programs are working (p. 52-54)

Better evidence of which program elements have the strongest positive effect would enable programs to improve and tech companies to concentrate their resources on the interventions that deliver the greatest impact.

“We’re hoping to uncover what delivery methods and dosages are most effective for girls. There must be a sweet spot somewhere between the brief exposure programs and ones that need someone in a chair for 40 hours a week. What’s the magic amount of dosage that gets a valuable experience?” – Howard Rankin, chief diversity officer and vice president of employee relations, Best Buy

FUND DATA COLLECTION AND EVALUATION FOR PROGRAMS

Include comparisons with control groups of girls to figure out what the most effective program designs are to get more girls and women into the technology sector.

ENCOURAGE LARGE-SCALE DATA COLLECTION ON COMPUTING EXPOSURE

Mechanisms include AP exams, the SAT, and first-year college surveys. Companies also have an opportunity to collect better baselines for current participation. On a population-wide level, they can pinpoint which combinations of experiences are most likely to lead girls into computing.

INVEST IN CROSS-SECTORAL RESEARCH TEAMS

Computing teachers, experts in pedagogy, program administrators, and academic researchers should work together to experiment with different program designs while working side by side to assess what works. These teams could work with colleges, school districts, or existing non-profits to innovate, test, and refine different models.