



WINNING THE RACE FOR WOMEN IN DIGITAL

By Frances Brooks Taplett, Matt Krentz, Miki Tsusaka, and Bernd Ziegler

THE DEMAND FOR DIGITAL talent is so huge—and growing so fast—that companies are falling all over themselves in a desperate rush for the next hire. Unfortunately, they are missing a big opportunity by not targeting women more effectively. Women constitute 36% of university graduates in the science, technology, engineering, and math (STEM) disciplines but only 25% of the STEM workforce and just 9% of STEM executive leadership.

Adding more women to the digital workforce will do more than just fill a growing need for talent. BCG research has shown that there are real benefits—both operational and financial—to creating more gender-balanced workforces and leadership teams. Companies in which women are equally represented are more innovative and resilient, and women working at them have higher levels of engagement and ambition.

As part of our research, we developed a framework for analyzing gender diversity issues that tracks the stages of the career

pipeline: recruiting, retention, advancement, and representation of women among senior leadership roles. These four stages are interlinked: companies will be unlikely to recruit more women into digital roles if they can't retain and promote those already at the organization. So, companies need a systematic approach that will address all four, starting with a clear statement from leadership that gender diversity is a priority.

The good news is that digital technology is at an inflection point in terms of growth, meaning that there is time for companies to catch up. Those that actively seek out the right pools of talent and launch targeted initiatives to bring in those women candidates will improve their company's performance. And those that manage to keep and promote women to higher positions will truly win the race for digital talent.

A Critical Shortage of Women in Digital

Digitization is transforming businesses in all industries, and companies are investing

heavily to put new systems and tools in place. Yet talent remains a limiting factor at many organizations. The US Department of Labor estimates that there will be 1.1 million computing-related job openings in the US by 2024, but more than two-thirds of these jobs could go unfilled given the insufficient pool of college graduates with computing-related degrees.

Women could help meet this demand, yet cultural and social influences have pushed women out of STEM-related jobs in the past. Given the smaller pool of women with degrees in these fields, it is no surprise that they are underrepresented at companies. (The exhibit shows the decline in the number of women in STEM fields as seniority rises.) Some women who do have the requisite education often opt to work outside of traditional companies. As Elizabeth Bramson-Boudreau, the CEO and publisher of *MIT Technology Review*, told us in an interview, “Even when women graduate with a tech-related degree, they’re more likely to go into academia or apply their skills to a mission-oriented project.”

In addition, women who do get hired at companies often don’t stay. Because there are so few of them and they cannot see role

models ahead, they often feel isolated and end up leaving. For this reason, simply focusing on recruiting isn’t likely to work.

“A lot of big tech companies focus on diversity in hiring women, but once they’re in place, the culture is still set up in a way that privileges men,” says Ryan Clarke, director of research and evaluation at Girls Who Code, an organization that teaches computer science to school-age girls. Cultures are difficult to change, she notes, and they have a disproportionate impact in that they don’t just affect current employees—they also affect a company’s reputation to potential candidates. Women who hear about these cultures simply opt out and look elsewhere.

In sum, most companies have serious work to do in getting women onto digital teams. Because technology is becoming so pervasive—in essence, all companies will soon be tech companies—there is a greater array of end products and services that incorporate digital, meaning that women have a critical perspective to offer. Companies need women coders and designers who think about the different types of offerings, from online purchases to websites and mobile apps for personalized health care. Companies also need diverse perspectives

Women Are Significantly Underrepresented in STEM Fields



Sources: UNESCO Institute for Statistics; World Bank; ILO; Credit Suisse; Catalyst; Deloitte Global; 2017 Harvey Nash/KPMG global survey; BCG analysis.

on how to channel and use AI and large masses of data in a way that is fair and equitable, rather than simply perpetuating existing biases.

How to Win: Addressing the Full Employee Lifecycle

For companies to win the competition for women in digital, they must not only recruit more effectively but also address the full employee lifecycle, including retention and advancement.

SOURCING TALENT

First, companies need to make sure they are looking at the largest possible pipeline of talented women.

Identify every possible candidate. As discussed, there simply aren't enough women studying STEM-related subjects, but at a minimum, companies should aim to reach every possible woman in that category.

To that end, companies should create targeted marketing and ad campaigns with the message that they are actively seeking women candidates. LinkedIn, Facebook, and other social media platforms are all valuable tools in launching more targeted outreach. There is a strong network effect in place among millennial women in technology. "When you find one, you find many, because they all follow each other on social media," says Bramson-Boudreau of *MIT Technology Review*. Companies can also target women-only colleges or organizations. When using headhunters for open positions, require that shortlists of candidates include equal proportions of men and women.

Companies that can't find enough skilled women candidates can expand the pool by offering training programs on the skills they need. For example, the craft site Etsy could not find enough programming candidates through traditional channels, so it launched a 12-week program with free courses on open-source software and coding. The company ended up hiring more than a third of the first wave of attendees.

On a broader scale, they can become advocates to bring more school-age girls into STEM programs, and potentially even sponsor or fund such programs.

Rethink candidate events. In addition to staging traditional job forums, companies should hold women-focused recruiting events. These can be low-key, informal events, where participants are encouraged to bring a friend along. (The research shows that because there are so few women in science and technology fields, many feel isolated and do not have strong professional networks in place.) Some companies, like Accenture, use digital technology to hold virtual events for job candidates. (See "Digitally Driven Gender Diversity," BCG article, August 2017.)

Consider candidates from non-STEM and STEM-related fields. Tapping into the alumni networks of top engineering and computer science programs is critical. But companies should also consider women in adjacent fields at the collegiate level who have similar skills and the aptitude to learn the harder digital and analytical skills. When recruiting women already in the workforce, don't ignore those who may have a technical foundation in place yet are currently working in adjacent fields. For example, women entrepreneurs who founded technology startups may not have done any actual software coding, but they know how to manage projects and talent in that realm, making them attractive hires.

Make job offers fair. A central challenge in gender diversity is that many women still don't receive the same pay as men in an equivalent role, and the data and analytics field is no different. A 2017 study of 120,000 job offers by *Hired*, a technology job marketplace, indicates that two-thirds of job offers for women are at lower salary levels than offers for men, for the same position at the same company. Another study found that women in technology positions receive salaries 18% to 22% lower than those of men. This is a deep-rooted problem, but it also creates an opportunity: by ensuring that pay levels are fair—for existing positions and particularly for new hires—companies can

differentiate themselves and become more attractive to women candidates.

Use technology to eliminate biases. Most managers who make hiring decisions for digital and analytics jobs are men. The research shows that virtually everyone falls prey to unconscious biases that cause them to favor job applicants who share their background—meaning that qualified women may get overlooked.

To fight this tendency, use software programs to eliminate biases in job postings. (Textio is one option.) Screen candidates by looking at resumes in which names and other identifying details have been removed so that all candidates can be evaluated based on their merits alone. Conduct first-round interviews using AI software. And use gamification, asking candidates to play a series of neuroscience-related games and applying the results through machine-learning algorithms to better match candidates to positions free of bias. (One caveat: some AI applications “learn” based on previous hiring data, so they can often simply replicate, or even exacerbate, hiring biases from the past. Like all technology, AI-based hiring programs require human supervision, and recruiters themselves will need to be trained on how to use these tools to eliminate biases.)

RETENTION AND ADVANCEMENT

All the recruiting initiatives in the world won't help if companies can't keep women once they're hired. Accordingly, once women are on board, leaders need to put the right measures in place to retain them and give them the same fair shot at advancement as men. Those measures should be based on data, rather than hunches. Specifically, companies should focus on the following initiatives.

Make role models prominent. Showcase women leaders from the company at every opportunity. Intel has used this approach successfully. The company set a goal in 2015: that 40% of all new hires would be women or minorities. To support this program, the company held red-carpet events where women or racially diverse

executives already at Intel could meet with recruits of their own gender or race and hire them on the spot. The company achieved its goal within one year; 43% of new candidates in 2016 were women or minorities. Female role models are even more critical in leadership roles, says Bramson-Boudreau of *MIT Technology Review*. “At this point in time, it's a little embarrassing to have an all-male leadership team.”

Sponsor talent. Sponsorship by senior men and women is effective in giving junior and midlevel women support to build a career in which they rise through the ranks at a company—rather than just accepting a job there. Sponsors typically offer career advice to help high-potential women navigate inflection points in their careers and lobby for them to receive promotions, training, and key assignments. Notably, this sponsorship should be seen as an opportunity for both men and women.

Offer flexible work arrangements. One clear measure for creating an inclusive culture is flexible working arrangements. In research conducted by BCG and other organizations, women consistently rate flex work among the most effective measures in terms of boosting gender diversity and increasing retention. In a recent BCG study, 58% of female employees cited flexibility as the most effective intervention for increasing gender diversity across all industries worldwide. (See *Getting the Most from Your Diversity Dollars*, BCG report, June 2017.) Moreover, flexible work aligns with the ethos of tech functions, whose employees are generally young people who keep nonstandard hours and don't worry about outdated concepts like “face time.”

Take bias out of advancement. As in recruiting, bias is present in key decisions and promotion points. Affinity bias in a predominantly male culture will naturally favor men at key moments—decisions about who should be promoted, who should attend key meetings, who should get opportunities to lead high-demand projects. Companies should ensure that metrics are used at each decision point and

that decision-making panels are diverse themselves.

WE ARE AT a point where the challenges that women face at work are more openly discussed—and, ideally, addressed—than in the past. At the same time, technology is becoming prevalent in all industries. Those two strands are creating an impera-

tive for companies to recruit more women into digital roles and to create the kind of equitable corporate culture that allows women to thrive and advance. The measures discussed above are a starting point on a long journey. However, we believe the destination—a balanced workforce in which opportunities are based on talent rather than gender—warrants the effort.

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