

# WHERE ARE THE WOMEN?

**Andrea Babbs** examines the acceleration of cybersecurity while exploring what can be done to create equal opportunities for all

**C**ybersecurity is a growing industry, one that has accelerated more than ever as a result of the ongoing pandemic and shows no signs of slowing down anytime soon. The number of cyber attacks continues to rise, with new and innovative methods of hacking affecting businesses of all shapes and sizes. A report by DCMS reveals that the UK's cyber security industry is now worth an estimated £8.3-billion. But for an industry in demand, why are we still seeing a lack of female talent and expertise?

According to Gartner, women currently represent about 20 percent of people working in the field of cybersecurity. The industry remains male-dominated, and this lack of diversity means less available talent to help keep up with mounting cyber threats.

Even at the very beginning of a tech-based career pathway, hurdles are already in the way for a woman's success. Females make up only 28 percent of the workforce in science, technology, engineering and maths (STEM) and are systematically tracked away from these subjects throughout their education, and pushed towards written and creative arts, limiting their training and options to go into these fields later in life.

STEM fields, in particular, have traditionally been viewed as masculine and often teachers and parents may push girls away from pursuing such subject areas – with females making up just 26 percent of STEM graduates in 2019. In turn, because fewer women study and work in STEM, these fields tend to create exclusionary male-dominated cultures that are not supportive of, or attractive to women. Additionally, there is a need for more female STEM-subject teachers, as young girls may feel that they cannot be what they can't see.

Even if at a later point a woman decides to go into cybersecurity, barriers to entry exist, such as needing a minimum of two years of experience for entry-level positions. This begs the question, how do you get those two years without being offered a foundation to gain the

necessary skills or lessons? This prerequisite leads to talented, tech-savvy young women entering non-tech sectors, perpetuating the cycle of fewer women in cyber security, as well as technology in general even if they have trained in that subject.

For the women that have entered the industry, it is clear that the cybersecurity profession is not limited to just one type of job. There are a variety of opportunities in different settings which require distinct skill sets, more of which can now be done from home – which has been accelerated due to COVID-19. From engineers to analysts, consultants and technologists, the roles are endless. However, why is it that women tend to end up in the more 'customer facing' roles, such as marketing, sales or customer support? 66 percent of women report that there is no clear path forward for them in their career at their current tech companies. How can females continue to progress once they have a foot in the door into more technical or product focused roles?

## A DIVERSE WORKFORCE ALLOWS A BALANCE OF INPUT, NEW IDEAS AND FRESH PERSPECTIVES

There is also a need to dispel the myths that women cannot take on 'tech-heavy' jobs. Despite girls outperforming boys across a range of STEM subjects, including maths and science, there is still a presumption that exists that women are not equipped to take on 'complex' tasks and roles. And even if a female is successful within these subjects, why do we still see a lack of women represented in senior leadership positions, on boards, as CEOs and in STEM careers? Interestingly, research found that those who attend an 'all-girls' school, do not have lower-esteem when pursuing technology subjects, as they see their



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female peers also taking part and are in a learning environment free from gender stereotyping, unconscious bias and social pressure.

Another hurdle that women continue to face later on in their career is when it comes to taking maternity leave or a longer career break to raise a family. When taking a break from such a demanding industry, employers might question the gap in their CV. This goes on to create barriers for women who have taken the necessary time off to start and raise a family for when they eventually want to return to work, as three in five professional women return to lower-skilled or lower-paid jobs following their career breaks. Additionally, the challenges faced by women returning to the workplace costs the UK an estimated £1.7 billion a year in lost output.

The former senior director of the Anita Borg Institute for Women and Technology, Claudia Galvan, notes that for women: "It's almost considered career suicide to leave." These women find it: "almost impossible to go back to work, or if they do go back to work, they have to take totally different jobs from what their career was, a demotion, of course pay cuts – and that's if they get the opportunity to get back into the workforce."

For the women that do make it in the industry, who do they have to look up to? They can't necessarily relate in the same way to a man's experience or be inspired to

keep progressing in cybersecurity when the board of CEOs are not gender diverse. The lack of females in security and tech in general results in having limited mentors for those who do enter the industry, making it difficult to find support in such a male-dominated industry or seek inspiration from female leaders who have forged their way in the sector.

There is a need for businesses to provide this mentor support and for women to join organisations, whether inside or outside of work, where they will find the necessary guidance and mentors to help them with their career and journey in technology.

The argument here is not just that there needs to be more women in cybersecurity and technology, but that workforces must have some form of diversity within them. But to ensure that women gain equal footing in traditionally male-dominated industries, there is an often-overlooked factor – men need equality too. The same way that businesses need to offer the right maternity leave and support to women, they also need to offer men support in the areas of paternity leave and childcare. This then follows on to the need for flexibility within working hours for school runs, for example, as it needs to be understood that men have children too and women are not always in the number one care-giving position.

Having a diverse workforce allows there to be a balance of input, fresh perspectives and new ideas. Women bring an array of different skills, attributes and experience to cybersecurity roles, ranging from different learning approaches, ways of approaching problems and solutions and bring in wider viewpoints. Working in an industry like cybersecurity where everyone is impacted and is a target – we need everyone to be involved in developing solutions to solve the problem. This is not just restricted to gender, but also includes race, religion, age and culture. Making solutions relevant to those impacted by the problems is the only way we will mitigate the risk of cybercrime.

## WOMEN REPRESENT ABOUT 20 PERCENT OF THOSE WORKING IN THE CYBERSECURITY FIELD

As a starting point, women need to be encouraged into the field of cybersecurity. Whether this is from a younger age during school, offering varied entry pathways into the field or making it easier to return after a break, hurdles into the sector must be addressed.

Each business has a role to play when it comes to ensuring that their organisation meets the needs of all of their employees. This should include flexible working hours, whether it is remote or hybrid working, reduced hours and adequate maternity and paternity support. It would greatly benefit women if organisations were to implement 'return to work schemes', helping those who have had a break from the industry get back into work – and this doesn't necessarily mean limiting them

to roles such as marketing, sales and customer support. Human resources teams must also do better when it comes to job descriptions, ensuring that they appeal to a diverse audience, offer flexibility and that the recruitment pool is as diverse as can be.

### A POSITIVE START

The government has started to take action, setting up the Cyber Security Skills Strategy, and businesses themselves have started to implement programmes to support those with gaps in their CVs and are eager to return to their careers, such as J2 Global's Restart Programme. This programme is dedicated to those who have a gap in their experience and are eager to return to their careers, providing them with an employment opportunity which emphasises growth and training, helping professionals return to the workforce. When businesses step up and take matters into their own hands, it provides more available routes into the industry for everyone.

As cybersecurity threats become more diverse, there is more of a need than ever before for more diverse teams. Becoming part of a gender-balanced cyber workforce is a productive way to avoid unconscious bias and build a variety of solutions to complex problems.

The latest government initiatives and courses to attract diverse talent and better the UK's security and technology sectors is a great start, but the only way to continue this progress is more investment and emphasis on STEM as a career path for both males and females, who are treated equally and can see themselves reflected in their senior management teams.

While the cybersecurity industry remains an attractive and lucrative career path, more needs to be done to direct female students in the right way to pursue a job role within STEM and to support those who are returning to work ●

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