

Written by Allison Murray,

on March 1, 2022 **Software development: Emerging trends and changing roles**

The tech industry as a whole has a gender problem, and the developer role is no exception: according to last year's FRG Technology Consulting Java and PHP Salary Survey, only one in every 10 developers is a woman.

Another grim statistic is the number of women who have entered the computer science field: that number has actually decreased from 32% of the total workforce in 1990 to 25% in 2021. Here's another depressing statistic: a study from 2017 found that the approval rate for code written by women was actually higher (78.6% compared to 74.6%) than that for code written by men. But the acceptance rate for women's code was only higher when they were not identifiable as women.

One organization trying to turn the negative statistics into more positive ones is Women Who Code. The not-for-profit organization works to get more women involved in software development, as well as provide a safe space for those currently in it.

"Tech jobs account for some of the highest paying and most stable careers, and yet women only make up about 26% of technologists," Women Who Code's president of product and communications, Joey Rosenberg, tells ZDNet. "By empowering our community with the tools and support they need to succeed in tech, we hope to elevate different perspectives from leaders who will in turn uplift other women, helping to create a pipeline of change for good."

Women Who Code's mission is to provide a range of services for women coding professionals and assist women in expanding their developer careers. The organization offers coding resources like tutorials and educational materials, a job board, scholarships and leadership opportunities to 290,000 members across 134 different countries.

Naomi Freeman, a senior leadership fellow at Women Who Code, first got involved by attending a meetup in Ireland. She says it was refreshing to be with a community of women and share things they were working on, as well as skills and how they could help each other.

"[With women], there's usually this glass half-empty mentality, like, 'I don't know how to do this JavaScript,' or, 'Someone told me that I didn't have enough formal experience'. And I think Women Who Code helps flip that

lens to look at things glass half-full, and to really identify what women are bringing to the conversation and the industry by saying, 'Great, you've already had experience in a different industry, how do you bring that over?'" Freeman tells ZDNet.

These meetups are a stark contrast from what Freeman has otherwise seen in her developer career. One memory that sticks out to her is when she spoke at a conference with hundreds of men in attendance compared to about four women.

"When you're in a room full of guys -- and it doesn't matter what continents or countries -- they do the same thing: they all seem to kind of talk down to you like you're a baby," she says. "And there are a lot of women who have PhDs who've been working in technical fields for 10-plus years, and men will approach them with that same tone."

Freeman says one of the main reasons she is so passionate about speaking out and working with Women Who Code is that she has had terrible experiences as the only woman in a room.

"I would rather put my energy into finding ways to build forward so that other women don't have to experience the barriers that I came up through," she says. "One of the hardest things is when you're completely alone in a room, representing a group. You can start to feel a little bit crazy and doubt yourself."

A new view of coding

Freeman believes that the industry can allow women to feel like they belong and that their skills are valid by reshaping how people view creating code and what developers do.

"I think we need to really talk about how code is a tool that allows us to connect people. It allows us to have creativity, to express things in a new way, and to learn more things about the world," she says. "The way it's marketed right now is a little hyper-aggressive and that you have to have all these computer science standards, but you don't necessarily need a lot of computer science or math these days, not for every area."

Instead, Freeman argues that reframing the developer industry as a creative industry would allow more women to believe that they can come into it and utilize their skill sets without thinking it's so much of a boy's club.

"[The developer industry] is a connection industry where we work collaboratively and review other people's codes and pair on things together," she says.

That's why the Women Who Code's networking events are essential to its mission: to bring women developers together to work alongside each other. And Women Who Code isn't the only organization doing it; there are plenty of other communities for women developers out there, such as Rails Girls, Write/Speak/Code, Black Girls Code, Girl Develop It, and more.

Rosenberg says the organization is also looking to focus on the leadership aspect of its mission to make sure women move up the ladder in the developer industry.

"We offer a global leadership development program that is currently empowering over 500 women to be and become leaders in the industry by giving them support, training, and opportunities to demonstrate their leadership qualities and technical know-how," she says. "Women Who Code will continue to work towards a technology industry where women are better represented at every level."

It is clear the developer industry has a lot to work on regarding gender inclusivity, but Freeman adds that diversity on a broader level would improve innovation throughout the entire sector.

"Diversity creates creativity and innovation because different ideas are bumping up against each other," she says. "When you're in a room where you have an imbalance [of diversity], it's going to be really hard to innovate and create new things because a lot of people have the same background and thoughts, and they're going to reach the same conclusions -- I think that is a disadvantage for the entire industry."