Rifts exist beyond Silicon Valley

The outrage sparked by a sexist memo of a Google employee obscures the view of structural problems in the technology industry. They also exist in Germany.

'I'm out of the danger zone.' Katharine Jarmul says this sentence emphatically. Danger zone, the term makes you think of extreme mountain climbing or Chernobyl. But Jarmul is a developer. The danger zone was her everyday professional life.

The memo of a Google employee that emerged last month showed this in an exemplary way. Among other things, the software developer claimed that because of biological differences, women would prefer working in social or artistic areas than in software development. In addition, he described women as fearful and less stress-resistant than men, hence they would be less likely to get into management positions. Google's Vice President for Diversity, Danielle Brown, hastily issued a press release, while Google CEO Sundar Pichai briefly interrupted his vacation to take his employees to task. On Tuesday, the author of the memo was dismissed. Those responsible in Mountain View wanted to avoid another PR disaster. The US Department of Labor is already investigating whether the corporation systematically pays its employees unequal pay. But the fundamental problem is not limited to Silicon Valley.

Katharine Jarmul, originally from Los Angeles, wears a casual sundress and no make-up. She has been a programmer for nine years. Three and a half years ago she moved to Berlin. Back in Los Angeles she had founded the PyLadies, that was in 2011. The group promotes and supports women in learning the programming language Python. 'It was important to me that other women know there are different voices and they are not alone', she says. An offshoot of the network exists in Berlin by now.

Sexism is omnipresent in the industry. When men assume per se that women have just begun programming and unsolicitedly start explaining to them anything things they already know. When they ask immediately after the 'Hello' if they knew what a database is. When they interrupt women constantly. Or when they explain to the keynote speaker after the keynote at a conference what the actual definition of sexism is. Jarmul experienced all of this. The latter occurred during a conference in Amsterdam when she presented the ethical challenges of machine learning. 'I'm always lectured a lot by men, although I've been doing this job for ten years!'

So she started her own business – paving her way out of the danger zone. Since she started working as a self-employed consultant the frequency of sexist remarks has decreased, says Jarmul. It is still safe to assume when meeting with customers that the majority thinks she is responsible for marketing while the male colleague presents the technological part. She laughs about that today. 'I got used to everyday sexism, to be honest, you're just prepared for anything.'

Part of this preparation is to arm oneself appropriately for lectures and conferences. Before each talk Jarmul expects that the audience will question, disbelieve and challenge her because of her position and gender. That's why she invests hundreds of hours of research into her presentations. Up to now her assumption was always justified.

Where few women are, few will join

When a group dominates an industry as overwhelmingly as men do in tech, certain behaviors and societal stereotypes are exacerbated by the lack of correctives within the team. To this day the label 'only for women' is often negatively connotated for example. Measures especially designed to promote women such as women-only computer science courses are often derided as if this training was inferior or a tutoring course. In that sense, sexism must be called out and debunked to effect change.

And where only few women are, only few will join. In reverse, it is much easier to employ more women as a woman. They share a common knowledge about experiences made along the way and what it means to be a female programmer or software developer. In this regard, it is a mistake to think that the term technology is neutral. Especially in Western and Central Europe it is male connoted.

'What is called technology in the first place is associated with industrial work and hence with the understanding of male craftsmen in Germany. It also has to do with power, a high reputation and a lot of money', says Veronika Oechtering. The computer scientist manages the Competence Center for Women in Science and Technology at the University of Bremen. She researches on sex and gender aspects in computer science and has organized summer schools for female computer scientists and IT professionals for 20 years.

Only 20 percent of computer science students are women

Pretextual arguments such as that women simply do not want to program and are therefore underrepresented are simply wrong. 'There is a huge potential of women in this field who are highly educated and technically interested but who are simply negated in this work culture.'

True gender equality can only be achieved if the prevailing disadvantage is tackled in its entirety. Oechtering is convinced that individual measures do little to improve things. Above all, structures within a company and the work philosophy that everything is subordinate to the job would need to change: 80-hour weeks, permanent presence, being always available, even on weekends and at night.

High dropout rate

'Instead of promoting those who have the most creative approach, those who are most often at work are often preferred in the field. And those are usually single men', says Katharine Jarmul. Prior to founding her company, she had worked as a developer in three different jobs, working hours were crazy. It comes as no surprise that many trained professionals leave the IT sector as a result, often after less than a decade.

Hardly anyone talks about the high drop-out rate, says Jarmul. Although a big problem comes along with this circumstance: those who haven't worked as programmers for about ten years are rarely promoted to higher positions with more responsibility. For women it is yet more difficult to get promoted. Veronika Oechtering observes that many of her female students start looking for alternatives because of the prevailing working structures even before they have begun their job: 'I mean, you cannot delude any female student into thinking that she will actually find changed work structures here.'

At this point in the discussion people like to refer to the beginnings of software development, to Margaret Hamilton, for example, who contributed essentially to the code for the Apollo mission to the moon or to Ada Lovelace, who wrote the first algorithm in the 19th century. Neither of these two women was a role model for Katharine Jarmul. Her pioneers were much closer: her mother who worked throughout her childhood and worked in technical sales and distribution, her stepmother who worked in networking engineering and her female math teacher who taught her her first computer science lesson.

Needless to say, a poster of Marie Curie and the periodic table were stuck to the wall above her bed, says Jarmul. Only in college did she realize that mathematics and science were apparently a 'guys thing'. Today she tries to support other women herself and to back them as a mentor. 'I would not have stayed in the industry that long if it wasn't for my girlfriends who also code. It's important to be able to talk to someone who understands you and knows your situation.' The mere fact that she is a programmer and other women can see her in this position helps initiating change.