

GENDER-BASED CYBER THREATS AND HARASSMENT

Salome Sanadiradze, Nino Ghonghadze

Revised by: Professor Manana Khachidze

Abstract

The work on the topic - gender aspects of cyber security and harassment, aims to discuss and introduce the public to the current state of affairs in Georgia regarding this issue; The presenters will talk about the causes of the problem and factors that contribute to the deepening of the dilemma; For a parallel and to see the gaps in the cyber policy carried out in the country, we will consider the mentioned topic in a large scale; We will introduce you to the attitude of various global companies regarding this issue; We will discuss their strategies with which they successfully fight the said imbalance; In addition, we will touch on the internal policy of the technological giants, which course they have aimed to eliminate this problem; Finally, after reviewing specific examples and successful cases, we will compare the events held in Georgia with foreign examples and discuss the ways in which the same result can be achieved at the local level.

Introduction

Women are underrepresented in cybersecurity, similar to other STEM fields, but the issue is more pronounced in cybersecurity due to their low visibility in recognition events and senior assessment positions. This gender imbalance at management levels hinders the representation of female traits and leadership in cyber protection efforts, wasting capable talent, and affecting both sociological and economic aspects. A study in the CIS region found that 16% of cybersecurity companies had no female staff, with the highest female representation around 30%.

Despite growing interest in gender and cybersecurity, little focus has been given to women's roles in Georgia's cyber domain. This assessment addresses this gap, providing primary analysis on how Georgian female professionals perceive their roles, and highlighting the diversity of expertise in the Georgian cybersecurity sector, especially in reviewing and auditing cyber infrastructure. The goal is to create evidence-based strategies to bridge this gap and improve research on women's roles in Georgia's cyber protection.

Over the past two decades, Georgia's internet-using population has grown, unlike other post-Soviet countries that are generally unsupportive of non-masculine identities. The percentage of men connected to the internet has decreased, while men expressing a desire to use the internet less is almost half that of women. This contrasts with global patterns where the gender digital divide has remained stable since 2013. The growth of male internet users in Georgia might be aligning gender patterns globally, where online aggression against women and gender-diverse individuals is common, reflecting broader exclusion trends.

Gender Disparities in the Cybersecurity Field

Globally, the cybersecurity field is predominantly male, with women making up only about 24% of the workforce according to the 2020 (ISC)² Cybersecurity Workforce Study. This reflects a broader trend within tech where women are underrepresented, especially in technical and senior roles.

First Student Conference: “Gender Dimension of CyberSecurity”

Cultural stereotypes and societal norms often discourage girls from pursuing STEM subjects, compounded by a lack of female role models and an unwelcoming industry culture. Gender discrimination and inadequate support for work-life balance further exacerbate the issue.

Diverse teams offer better perspectives and problem-solving approaches, which is crucial in cybersecurity. By not fully integrating women, innovation is stifled, and defenses weakened.

In Georgia, the situation mirrors global trends but with unique challenges. Despite a growing tech sector and a focus on strengthening cybersecurity, traditional gender roles result in fewer women in STEM. According to a 2021 UNDP report, women in Georgia represent about 30% of the tech workforce, and only 10% in cybersecurity positions, with women earning on average 20% less than men.

Efforts are being made to address this through STEM-focused curricula and extracurricular activities aimed at young women. However, broader societal support is needed. There's also a lack of mentorship and professional networks for women in cybersecurity. Initiatives like Women in Tech Georgia and Girls in Tech are starting to help but need more widespread efforts.

Additionally, the professional environment in Georgian cybersecurity often lacks flexibility for work-life balance, disproportionately affecting women. Companies should adopt inclusive policies, including flexible working hours and parental leave.

Experience of Global Companies

Here's a condensed overview of the initiatives by major tech companies to promote gender equality in cybersecurity, retaining key statistics:

Microsoft:

- **Workforce Representation:** Women made up 29.7% of Microsoft's global workforce in 2022.
- **Initiatives:**
 - **Girls Who Code Partnership:** Provides resources and support to young women in technology.
 - **DigiGirly Program:** Offers high school girls opportunities to learn about tech careers and participate in workshops.
 - **Employee Resource Groups (ERGs):** Includes Women@Microsoft, offering support, mentoring, and networking for women employees.

Google:

- **Workforce Representation:** Women comprised 33.6% of Google's global workforce in 2022.
- **Initiatives:**
 - **Women Techmakers:** Provides visibility, community, and resources, including scholarships for women in computer science.
 - **Code Next:** Cultivates Black and Latino tech leaders with a focus on gender diversity.

First Student Conference: “Gender Dimension of CyberSecurity”

- **Inclusive Culture Training:** Promotes an inclusive culture and mitigates unconscious bias.

IBM:

- **Workforce Representation:** Women made up about 30% of IBM's global workforce in 2021.
- **Initiatives:**
 - **IBM Women in Security Excelling (WISE):** Supports women in cybersecurity through networking and professional development.
 - **P-TECH Program:** Focuses on STEM careers, including cybersecurity, promoting gender diversity through integrated education and work experience.

Current Initiatives and Policies

Here's a condensed overview of the Georgian government's efforts and private sector initiatives to address gender disparities in the tech sector, retaining key details:

Government Efforts:

- **Educational Reforms:** The Ministry of Education and Science integrates more STEM-focused curricula in schools and universities. The Georgian Innovations and Technology Agency (GITA) promotes STEM education through various initiatives.
- **National Action Plan for Gender Equality:** This plan promotes gender equality across sectors, including technology and cybersecurity. It supports women in STEM fields through scholarships and career development programs.

International Partnerships:

- **USAID’s Women in Technology Program:** Provides Georgian women with skills and training for the tech industry, including workshops, internships, and networking opportunities.
- **UNDP and EU Initiatives:** These projects promote gender equality in STEM fields in Georgia by offering scholarships for women in tech, organizing conferences and seminars to raise awareness about gender disparities, and supporting female entrepreneurs in the tech sector.

International partnerships, the Georgian government's efforts, and private sector initiatives are crucial steps towards overcoming gender inequality in STEM and cybersecurity. Learning from the successes of global tech giants can help Georgia create a more inclusive and diverse cybersecurity workforce.

References:

1. “Women in Cybersecurity: bridging the gender gap” ([ISC2.research](#), accessed 2024)
2. “Gendering Cybersecurity through Women, Peace and Security” ([DIL WPS and Cybersecurity Report](#), 2023)
3. “Country Gender Equality Profile” ([UN Women](#), 2023)
4. Gender Equality in Georgia: Barriers and Recommendations ([Gender Equality in Georgia](#), 2021)
5. Women’s integrity through cyber security programs supported by Microsoft ([Girls Who Code](#), 2023; [DigiGirly](#), 2018)

First Student Conference: “Gender Dimension of CyberSecurity”

6. IBM: Workforce Diversity and Inclusion ([IBM Newsroom](#), 2020)
7. The Georgian Innovations and Technology Agency’s (GITA) promotion of STEM education in Georgia ([Do It in Georgia](#), accessed 2024)
8. Commitments to Women in Partner Countries through the Digital Economy Fund and the Launch of the Women in the Digital Economy Initiative ([USAID partnership](#), 2023)