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# Iraqi Women in Tech: Bringing a Seat to the Table

The number of women in science and engineering is increasing. However, men continue to outnumber women, notably at the higher levels of these fields. Girls and women are systematically steered away from science and math throughout their education, limiting their access, preparation, and opportunity to pursue these disciplines as adults.

In science, technology, engineering, and math (STEM), The National Girls Collaborative Project states that women make up only 28% of the workforce, while men outnumber women studying in most STEM fields in college. Gender gaps are particularly prominent in some of the future's fastest-growing and highest-paying majors, such as computer science and engineering (National Girls Collaborative Project). It does not come as a surprise that this is a globally prevalent issue. However, it is notably worse in Iraq.

This can be deduced by looking at all the social and cultural boundaries limiting women in different STEM fields, especially technology. However, the relatively growing economy and private sector are pushing towards changing those boundaries by creating the space and opportunities for women to take the lead.

## Women in Tech: Boundaries and Challenges

Delving into the tech field for a woman is quite challenging, as many barriers encounter women based on their gender. The domain

of programming and software development is still not as popular in Iraqi society; the limited awareness about these work fields, in return, affects the numbers of applicants in general to those positions. This, as well as how society perceives working in a field dominated by men, is contributing to limiting women from getting training opportunities or starting their careers in the field.

The main issue that women face when entering technology fields is the difficulty of networking. The tech field is demanding, as it requires its workers to constantly be in the information loop while also being interactive with the community. In addition, technical work often calls for availability outside work hours, especially for those working in private companies. This can raise the concerns of the female employees' families as it goes against societal norms. Many families prefer that their daughters get less challenging jobs with fixed working hours. Thus, many companies prefer to hire men in technical fields for their availability and flexibility, leading women to get fewer positions in those areas.

Another challenge is the workload the tech domain necessitates for success. It demands a lot of effort on the individual's part to stay up to date with the latest technological advances, which can be a lifelong journey. This is somewhat of a hurdle in the way of women desiring higher positions in the field, as their stereotypical role in society is expected to be focused on settling down and having a family. Parents prefer their daughters to work in the public sector, deeming it to be more appropriate and stable.

Technology has not yet realized its full potential in Iraq, and businesses are still lagging behind in terms of digital transformation. Moreover, the lack of skilled human capital is a prominent issue in the labor market regardless of gender, which stems from an inadequate academic education provided by the educational system in Iraq, as it does not prepare or qualify the students for the job market.

## How to Tackle These Challenges

The solution lies in educating women on the significance of the private sector, which is an ever-growing part of Iraq's economic landscape. Moreover, with the increasing number of investments in tech fields, numerous opportunities are opening up for skilled women to find their career paths.

Developing women's technical skills establishes a more diverse and creative work environment. Companies can take the initiative in being a part of the solution by creating more female-friendly workspaces that encourage women to flourish and excel. Organizations should strive to provide equal opportunities to both men and women. Innovation cannot be achieved without true inclusivity. Any business that wants to make an impact must have an active strategy to address the lack of women in the workplace.

## Computiq: Inclusive Tech Training

Computiq is a leading software startup, with a vision to mainstream coding. It provides technical solutions and education opportunities through coding courses and bootcamps. The idea behind Computiq has come to light during a global Google coding competition. In 2018, a group of professional programmers hosted the first version of the competition in Iraq and noticed the lower scores in critical thinking and problem solving skills among Iraqis compared to participants from other countries.

These skills are required to be a successful programmer, therefore, in order to fill the gap, Computiq emerged to promote improving these skills through providing the right training programs that target different levels. Since its very beginning, Computiq was committed to providing opportunities for women who are interested in technology, with a mission toward inclusivity and diversity.

Since 2018, Computiq has started teaching the most well-known and significant programming course in the world, the CS50 computer science course from Harvard University. This course is beneficial for everyone, whether they have a background in programming or not. The people who partake in this course start with knowing next to nothing about programming; then they advance towards building the proper foundation for a successful programming career. Many companies such as Google and Meta recommend taking this course before job interviews.

Besides the CS50 Harvard course, which contains many subjects such as introduction to computer science, Computiq offers courses in web and mobile applications design, game development, and artificial intelligence. Computiq also offers data science courses in collaboration with UC Berkeley.

Computiq always encourages girls to enter this field by providing them with opportunities within the training programs; those include fully funded programs or discounts on the cost. The startup always strives to meet the Sustainable Development Goal of gender equality. Therefore, it ensures that at least 40% of the participants are women in all programs. In addition to providing internship opportunities in technology companies after the programs, most of which turn into full-time job opportunities. Computiq has provided its interns with job opportunities with many reputable local companies, such as Earthlink, Bloom Academy, Aswar, Band Tech, Codi, and Integrated Path.

Working in teams is an essential skill that trainees, especially women, learn throughout the programs. This simulates the actual work environment, for them to be ready later in their careers. In addition to their work on real world capstone projects, which qualifies them to work in companies on projects that directly contribute to solving the market problems and needs.

The number of female applicants to software training programs executed by Computiq is 1042 out of an approximate total of 3000 applicants





(Computiq statistics). The percentage of accepted female trainees is set to approximately 40%. Most of them finish their training and get internships or job offers directly. Computiq's interns work on real world projects sponsored by the Station's startups or some ideas from the UNDP Accelerator Lab.

## **Towards a More Diverse Tech Field**

The way to solve the problems that women face is to push them away from the public sector and toward the private sector. We must first develop the beginners' personal and technical skills in order for them to become viable candidates, to work in organizations and companies in this competitive and expanding market. This would decrease the unemployment rate affecting the lives of Iraqi youth. When the quality of the skills of college graduates increases, it will solve a problem that many companies are struggling

with, which is finding adequate local employees and avoiding outsourcing foreign individuals and companies.

There is a tangible change in Iraqi society that can be noticed from the finest details in regards to people's attitudes toward women in tech. This change can be observed on two levels, on a skill set and societal level. At first, many of the female participants' families were scared and were not even comfortable leaving them by themselves. Nowadays, we have reached a stage where their families are trusting enough to allow them to travel to other regions to participate in Computiq programs. The young women themselves are hard working, and by enabling them to grow their skills and develop, more success stories are coming out that can inspire other women. These women in leadership positions are pushing their own personal and societal boundaries, making a real impact in the technological and business landscape by shattering glass ceilings.

