EUROPE 10.04.2017 | Helena Spongenberg

IT Girls

Only one fifth of tech workers in Europe are women – and the number is declining in Europe's fastest growing industry

The technology sector is a booming industry in Europe, growing more than any other sector. But it desperately lacks women at all levels – students, programmers, decision makers and entrepreneurs. When you look at the increasingly important role technology will play in shaping our future, that's a problem.

While employment in the Information Communications Technology (ICT) sector has been growing at eight times the average rate of total employment growth in Europe since 2006 – even through the economic crisis – less than a fifth of the workforce are women, and their share is still declining. Or put the other way round, men account for 84 percent of the ICT workforce, a number that has been growing for the past ten years.

"There is a lack of representation of half of the population," says green MEP Terry Reintke, who wrote a European Parliament report on gender equality in the digital age last year.

In the EU, women make up only 16 percent of the ICT workforce; only 19 percent of ICT workers have a female manager; and there are only 19 percent of female ICT entrepreneurs compared to 54 percent of female entrepreneurs in other service sectors, according to the EU's statistical office, Eurostat.

"The gender gap in the ICT industry is staggering," Labour MEP Julie Ward has argued, adding that it is "an industry that will increasingly shape more and more aspects of our lives, our societies, and our culture".

And looking at gender trends in education areas such as science, technology, engineering and mathematics (STEM) – the subjects most linked to ICT jobs – the numbers are not set to improve in the near future.

There are twice as many male as female graduates in STEM professions. For every 1000 women, only 29 get a degree in ICT and only four end up working in the ICT sector, while for men, the number is 95 graduates and 20 working in ICT.

A future shaped by men and machines

Innovation in technology is advancing as fast and broadly as ever, and its impact on our day-to-day lives is huge. From fridges that automatically order eggs and milk and dustbins that text you when they're full, to wallets that sound an alarm when someone pinches them, we increasingly depend on smart devices for our daily tasks and social life. In fact, virtually every sector depends to some extent on the effective application of technology.

While today's ICT professionals do a great job, it only makes sense that the industry that shapes the systems we live with and that help us go by our daily routines, also represents our population.

The European Commission once said that "tech is too important to be left to men". Or as a controversial student recruitment video from the Royal Institute of Technology in Sweden put it recently: "The future is too important to be left to men".

Women bring home the bread

An EU study has found that equal representation in the ICT sector could add 9 billion euros to the EU's economy each year. The ICT sector creates 120,000 new jobs each year and the European Commission predicts there will be around 900,000 unfilled ICT positions in Europe by 2020. Soon, 90 percent of jobs will require digital skills.

This growth, connected with the lack of workforce, makes ICT one of the highest paying job sectors. Women who work ICT earn almost 9 percent more than women in other parts of the economy. Attracting more women to the ICT sector would carry further benefits such as helping reduce the general gender pay gap and giving women greater financial empowerment, argues Terry Reintke. Indeed, there is no gender pay gap in ICT related jobs, according to Eurostat, compared to 5 percent in non-ICT sectors.

There are many initiatives from governments, NGOs, associations and companies – both local, national and international – that aim to get

more women and girls interested in ICT and computer science in order to reduce the gender gap. They seek to create role models and identify career paths that inspire girls.

"When you ask someone to think of a data engineer, they will think of an asocial male hacker sitting in front of a computer, never leaving his room," argues data science researcher and lecturer Laia Subirats. "That scares many girls away from studying informatics and STEM."

A good place to start, she says, is to give girls more technical toys – commonly reserved for boys. Young women studying computer science often feel they lag behind their male counterparts, because they did not have the same exposure to technology as children. Interest in the sector would also increase if there were more TV series and movies like the recent film *Hidden Figures* - the story of a team of African-American women mathematicians who served a vital role in NASA during the early years of the US space program.

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While European countries are pushing for more ICT and coding in secondary school, only Finland has made programming compulsory in its national curriculum. As of autumn 2016, Finnish children are taught to think of coding and programming as tools to be explored and integrated across different subjects.

"We are still far from getting a grip on the problem," says Reintke. "Now we need to start implementing ideas and see what laws we have to make to create more equal access to ICT and the digital future we are facing."

Fighting gender stereotyping and sexism – such as the oft-repeated maxim that 'women can't code' – will take long-term effort and investment in education. But there are more immediate measures the EU can take to encourage women to enter the ICT sector. These include funding directed specifically to women in ICT; linking up the EU's Digital Agenda with the bloc's work on Gender Equality; and more visibility for women already in the sector – starting by increasing the number of female speakers at ICT related conferences in Brussels.

This April 27 is the International Girls in ICT Day – highlighting the everyday efforts we must make to secure gender equality in the important and far-reaching ICT sector.



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Helena is a journalist who has been reporting on everything European for more than a decade. She has written for the Associated Press, the EUobserver and Thomson Reuters and has six languages to her bow. Helena has travelled the world twice, lived in six countries, and is now based in Barcelona. She holds a degree in journalism and contemporary history and a master in international politics. A run in the mountains clears her head.