

Marina Stephanova

# Women go digital

Work environment has changed. Technological advances and ubiquitous digitalisation have transformed the way we work through new digital tools, virtual workplaces, cloud services and collaboration applications to name just a few. The use of information and communication technologies (ICT) shapes today's economy, impacts the labour market and raises new questions. The McKinsey Global Institute expects half of the current jobs worldwide – 2 billion – to disappear by 2030 as a result of the disruptive influence of technology. These jobs may be performed by a machine or IT capability but they may also be replaced by new jobs that have not been created yet. Digitalisation is bringing down boundaries and opening up new opportunities while clichés and old stereotypes are being defied.

## Geek revisited

'Tech', once considered an exclusively male domain, has seen tides shift, albeit slowly, as more women are becoming passionate about new technologies. The geek is no longer a lonely guy sitting in a dark room in front of a bright screen, eating pizza. 'Simply a geek' – this is how Gabriela Gheorghe, a computer security and privacy researcher at the University of Luxembourg, describes herself. An elegant young woman, outgoing and an excellent communicator, she counts Basic and C++ among the many languages she speaks such as French, English, Italian, Romanian, etc. She was one of the four gorgeous ladies – along with Dr.

Valérie Maquil, a researcher at LIST, Carmen Fenollosa and Suzana Filipecki from ECSITE (European Network Science Centres and Museums), advocates of women in science, technology, engineering and maths (STEM) – who took part

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in a panel discussion on research and innovation made by women organised by Jonk Fuercher on 19 March. 'There are no jobs for men or for women' she says. 'Try out as many things as you can, experiment, be ready to err – it is through failure that we learn more than through success – and be passionate about what you believe in. People can have multiple interests, not just one.' Different interests and creative approaches are especially useful today, at a moment where transferable skills as well as the ability to communicate and team up with others are increasingly sought for on the labour market.

However 'prejudices, preconceptions and stereotypes are models we must deal with. [Yet] how we choose to deal with them defines us – victim or victor,' says Patrick Wheeler, a risk and security expert and the presenter of a seminar titled California (Style) Career Clinic on 'hacking' the job market – building an understanding of how it works and the skills it takes to succeed. The good news is women like

Gabriela Gheorghe, Dr. Valérie Maquil, Carmen Fenollosa and Suzana Filipecki. Even if they are not the norm yet, they are not considered out of this world anymore. Girls are taking an interest in new technologies and making a foray into the tech industry, bringing more colour, style and creativity to it. One can tell how big the trend is by looking at all the emerging communities that bring together people, and especially women, with a passion for technologies – Geek Girls Carrots, Girls in Tech, Rails Girls, communities of Java Script, PHP or you name it developers and many others.

## Excelling in a boys' club

How do girls fare in the ICT environment? Some blend more easily and are admitted into the boys' club. For others, it is a bit lonely with all the sports talk around and nobody to discuss other topics such as fashion with. Still, professional skills, not gender, are increasingly what matters in the workplace. With companies scouting for talent, the rhetoric on who is better is rekindled, sometimes with a surprise twist. When it comes to computer programming, researchers from the computer science departments at Cal Poly, San Luis Obispo, and North Carolina State Uni-

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Marina Stephanova is co-organizer of the Geek Girls Carrots Luxembourg. She has a BSc in Economics but worked as an English teacher and translator for 18 years before discovering her passion for ICT. She is excited about promoting women in tech and boosting early maths and science education

versity have suggested that women make better coders than men – that is if those reviewing the code are not aware it has been written by women, of course. Yet, this is not about who is better than whom, it is essentially about levelling the playing field and having work judged solely by its quality, experts assessed solely by their professional skills and expertise. That is why some women in tech have refused to comment on such gender bias issues, stating they would not share views in the context of being women but would rather be considered in their professional capacity, gender apart, when professional matters are on the table.

Some may argue that women do see things differently. Not better or worse, just differently. This means that a diverse, gender-balanced team benefits from more perspectives, more creative solutions and thus higher efficiency and productivity – a presumably strong incentive for employers to take this into consideration and embrace the initiative to close the gender gap. Unfortunately, we are not there... yet. As CEBIT industry fair (Hanover) was celebrating women in digital business with a special event, the World Hosting Days,

another IT industry fair in Rust (Germany) featured 68 high-profile speakers...<sup>3</sup> of them women. How come there are still fewer women in tech industries despite all the campaigns, the calls and some big companies' leading example?

An employee of a Danish cloud service solution company thinks that girls are simply not interested. He insists that in Denmark, much like in most Western European countries, 'there is nothing holding women back from doing what they love, pursuing the careers they want and in general being who they want to be'. Yet, how does a girl know if she is interested in robotics, for instance, if she has never got a robot as a present? Or a microscope? Or anything tech? In Luxembourg, 10-12 year old girls studying in a standard public primary school show no interest in computers. Naturally, all of them use smart phones and are active on social media, sharing photos and images. Yet, they find it hard to believe that there can be anything fascinating about being a creator rather than a user of apps, about robotics, coding or maths. And those who find these things fun try to blend in, adapt to the stereotype. It takes a lot of courage to

swim against the current. Thus, the gender gap remains as wide as ever.

### Digital fluency and gender balance

The report *Getting to Equal: How Digital is Helping Close the Gender Gap at Work* by technology giant Accenture argues that digital fluency is a significant accelerator for women's education and careers. According to the report, it is an important factor for levelling the playing field at work. With the digitalisation of workplaces, getting on the right side of the digital fluency gap can change the picture for women – and their countries – in dramatic ways. At the current rate of digital adoption, developed nations likely will not achieve workplace gender equality until 2065, and developing nations until 2100.

Yet, if governments and businesses can double the pace at which women become frequent users of technology, we could reach gender equality in the workplace by 2040 in developed nations and by 2060 in developing nations, the study projects. Another finding is that according to more than two-thirds of those women and men

Gabriela Gheorghe speaking of security at Geek Girls Carrots Meetup (© Kasia Peleszuk)





The hackerspace Level2 (located in Bonnevoie) is a perfect place for knowledge exchange. (© Marina Stephanova)

surveyed – 72 % and 68 %, respectively – women’s employment opportunities increase as digital fluency increases. Also, digital fluency is helping today’s workers better manage their time, become more productive and allows greater work flexibility.

Digital fluency and digital literacy: what is it all about? ‘I really hope you do not mean Microsoft Office’, laughs Gabriela Gheorghe. Digital fluency is the extent to which people embrace and safely use digital technologies to become more knowledgeable, connected and effective. The skills range from knowing how to efficiently search the web for information and using it correctly, setting up accounts, using cloud services, web design, blogging, building online presence and leveraging social media tools to shared workspaces, search engine optimisation, analytics and data mining, coding, etc. Of course, not everybody needs to be a software developer. But understanding computer code helps develop logical, analytical and critical thinking, a problem-solving mind-set and debugging skills – all being transferable skills applicable to various areas of work and extremely useful in a rapidly evolving world where digital nomads thrive and career changes are commonplace.

Another digital essential is security and privacy awareness. ‘Certainly, one needs to manage personal vs. work devices, and that means some discipline and usage of certain tools (VPN, password managers, data backup procedures, device configuration, etc)’, Gheorghe clarifies. Information security and protecting private data is an indispensable part of the digital skill set required in tomorrow’s workplace. The skill set that would allow us to be less of digital immigrants and more of digital natives and never miss out on digital opportunities again.

### **Gear for tomorrow’s workplace!**

There are plenty of options to learn digital skills – certification courses, university degree courses, some organised by employment agencies but also informal meet-ups and workshops, many of which are free. Such informal free training enables one to get a taste of many things, which he or she can then deepen on their own by using the immense pool of resources on the web or doing another (online) course. Not being confined to a strict curriculum, informal training is more flexible to respond to the particular needs of the attendees or the changing environment and has a greater exploratory width without the pressure and

stress of taking tests. Also, workshops are generally very practical, hands-on and people learn by actually doing. Do you speak digital? Do you know how to protect your data? What makes a successful blog? All of these things one can start applying immediately.

Furthermore such events tend to involve a lot of interacting and networking – meeting new people, hearing different perspectives, diversifying one’s views, getting contacts and creating a community. They are about sharing knowledge and experience. Sometimes it is a personal story of ‘How I got here’, sometimes it is about what a career in tech is like and there are inspiring role models for girls with many examples of successful women that have ventured into the technical domain. These women generally find the careers they have chosen fascinating and even exciting and are eager to share their fascination. They do not consider themselves extraordinary but instead the message they convey is that everyone can try and do and succeed. Roll up your sleeves and gear for tomorrow’s workplace! ♦