

Digital technology has changed many things in our lives, but how is it affecting gender equality? Digitalisation has transformed the character of the labour market, changed the way we interact with our friends, shaped political participation, is impacting the future of work and also carries the risk of cyber violence. All of the above present new challenges, but also offer opportunities to address gender inequalities that affect both women and men, albeit often in different ways. The European Institute for Gender Equality (EIGE) provides some insights below, from its work on the gender aspects of digitalisation.

## Gendered digital path

### Self-confidence makes a difference

More than nine in ten girls and boys (16-24) are skilled enough to use digital technologies in their daily lives. The difference lies in their confidence: boys feel more confident about their digital skills than girls. For example, 73 % of boys aged 15-16 feel comfortable using digital devices that they are less familiar with, compared with 63 % of girls in the same age bracket. In countries where young people have a lower level of confidence in their digital skills (e.g. Latvia, Austria and Finland), the confidence gap between women and men is notably wider, reaching as much as 25 percentage points in Finland.

### Digital jobs less attractive to women

Low self-confidence among girls goes hand in hand with lower aspirations of engaging in digital jobs. There are only four EU countries (Bulgaria, Estonia, Malta and Romania) where teenage girls express an interest in working as an information and communications technology (ICT) professional at the age of 30. Even in these countries, the interest is very low (between 1 % and 3 %). In other EU countries, almost no interest is noted. In contrast, between 3 % and 15 % of teenage boys across the EU aspire to become ICT professionals. This shows how strongly gender stereotypes influence subject choices. Later down the line, this leads to certain study and work fields being persistently dominated either by women or men.

### High demand for digital professionals — shortage of women

Science, technology, engineering and mathematics (STEM) are the most gender-segregated subjects in the education system. Over the past decade, the percentage of women graduates in STEM subjects in the EU has decreased, from 23 % to 22 %. This gender division is mirrored in the labour market, where the share of women in STEM occupations is 14 %, with almost no change over the past decade.

## Gendered Digital Path

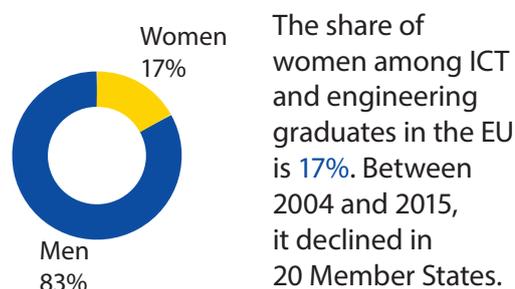
### DIGITAL SKILLS



### DIGITAL CONFIDENCE



### DIGITAL EDUCATION



### DIGITAL SPECIALISTS

**8 out of 10**  
**ICT jobs**  
**go to men**

Among 8 million ICT specialists in the EU, women make up 17 %

### IMPLICATIONS

**500 000**  
**ICT specialists**  
**lacking in**  
**the EU by 2020**

- Reinforced gender **pay gap**
- Unchallenged gender stereotypes
- Gender bias in technology
- Economic **loss** for the EU

In the area of ICT, only a fraction of women’s potential is being used. Despite the high demand for ICT specialists within the EU, women comprise a mere 17 % of the 8 million ICT specialists working in the EU today. With the EU expecting a shortage of more than 500 thousand ICT specialists by 2020, this will be a challenge for the future.

One of the barriers to getting more women applying for ICT jobs is male-dominated workplaces, where women struggle to find their place. Among ICT specialists, men are less likely to work under female supervision than women. More women than men are in offices with about roughly equal numbers of women and men (Figure 1). This suggests that women ICT specialists are not just in any workplace, but in those where there are more women. These gender divisions across ICT workplaces indicate that a women’s ability to enter and stay in ICT jobs is quite dependent on the critical mass of women who are already there.

## Digital jobs offer a chance for better work–life balance

Jobs in ICT generally offer favourable working conditions, especially in terms of quality of work and time arrangements that contribute to work–life balance. When compared to women in health professions, for example, women in ICT jobs find themselves in a potentially better physical and social environment: both women and men working in ICT have greater autonomy to decide their working hours than those working in health professions, for example, and the majority of ICT workers feel that their work hours complement their family or social commitments.

## Implications of the gender divide

Gender segregation is one of the main factors that contributes to the gender pay gap in the EU. ICT is one of the highest

paying sectors. On average, women in ICT are better-paid than women in other professions. The difference in monthly earnings between women and men is lower among ICT specialists (13 %) when compared to health professionals (26 %), or all other employees (33 %).

While male domination in STEM jobs, and, in particular ICT, is a consequence of gender stereotyping, it further reinforces ideas about femininity and masculinity, and the roles of women and men within society. Furthermore, the lack of women in science and technology development exacerbates gender bias in technology itself.

**EIGE’s research shows that narrowing the gender gap in STEM education would lead to economic growth, with more jobs (up to 1.2 million by 2050) and increased GDP over the long-term (up to EUR 820 billion by 2050). It is anticipated that the new STEM jobs will produce a great deal of work and be well-paid, resulting in improved EU competitiveness and a gradual closure of the gender pay gap.**

## Gendered digital spaces

### Gender norms are alive and well online

Digital platforms are spaces of empowerment and identity formation, but also of self-monitoring. For girls, social media can make them feel as though they are under constant surveillance, and that they need to ‘work hard’ to show that they are constantly beautiful, slim, young, attractive and present in the digital space. This is demonstrated by young women’s online behaviour and especially by the frequency with which they upload self-created content, notably pictures.

**Figure 1. The gender composition of the workplaces of ICT specialists within the EU-28 (20-64, %, 2015)**



Source: EIGE’s calculation based on 2015 microdata from the European Working Conditions Survey.

Boys also face challenges online. Findings from EIGE's focus groups in 10 Member States indicate some boys may overestimate their own ability to handle problems online, and are less prepared than girls to seek and accept help. This is related to the stereotypical expectation that boys should 'man up'. The virtual environment also magnifies gender stereotypes and reinforces 'toxic masculinity', especially in games where men's aggressive behaviour is tolerated and women are objectified and sexualised. This is important to take into consideration, as almost half of boys aged 15 play collaborative games online every day (Organisation for Economic Co-operation and Development).

## No place to hide from cyber violence

For young people, aggressive behaviour online is expected and becoming normalised. 12 % of 15-year-old girls have been cyberbullied by messages at least once, compared to 7 % of boys. As a result, young people have developed pre-emptive and responsive coping strategies when it comes to their behaviour in digital spaces. Girls and young women, in particular, restrict what they express online, for fear of cyberaggression, sexualised cyberbullying, gossip and hateful comments. For boys, the tendency seems to be to ignore and minimise the abuse experienced.

*'I'm too frightened to express my opinions online. I keep them to myself because I know that there will always be someone out there who won't like what I post.'* (girl, aged 15, Sweden)

## Technology boosts active citizenship

Today's young people are the most active users of the internet and social media and are among the highest consumers of online news. This level of access to information, exposure to different perspectives and involvement in societal debates can

be a powerful enabler of active involvement in public life and citizenship. However, young women's access to information and their significant use of social media networks does not necessarily lead to their active participation in civil or political life. This is the result of the careful self-monitoring of their online profiles to ensure that they align with traditional ideas about appropriate behaviour for young women.

Young people think that discussions about digitalisation focus largely on risks, leading to restrictive and prohibitive conclusions. They think that internet safety messaging should focus on empowerment and responsible online behaviour, rather than restrictions. Allowing girls and young women to access the opportunities offered by digital spaces in full, in terms of learning, exposure to political ideas, debate, mobilisation and activism would help to boost the number of future women leaders and close gender gaps in decision-making, particularly in the political arena.

## How can policymakers improve the situation?

- The EU would benefit from a strengthened gender perspective in all its digitalisation policies.
- Gender equality needs to become a consistent and structural part of future EU youth strategy and policies.
- Closing the digital skills gender gap would address the bottlenecks in the labour market, increase competitiveness of the EU and reduce socioeconomic inequalities.
- Policies targeting gender gaps in self-confidence in digital skills would increase the relevance of education outcomes and contribute to economic growth.
- Promoting positive gender norms offline and online would support young women's full participation in digital spaces.
- Civil society organisations, in particular youth and women's organisations, supported by adequate resources, would





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- enable the more meaningful participation of girls in society and policymaking.
- Ensuring the comprehensive, sustainable and continuous professional development of digital competences for teachers and educators.
- Legislation protecting girls from all forms of gender-based cyber violence should be enforced.
- The European Commission's dialogue with the ICT industry on the code of conduct on illegal online hate speech could be expanded to include gender dimensions.



EIGE regularly produces reports reviewing different areas of the Beijing Platform for Action (BPfA) or other EU policy priorities, as requested by the presidencies of the Council of the European Union. This factsheet is based on the results from the report *Study and work in the EU: set apart by gender* prepared at the request of the Estonian Presidency (2017); the research note *Women and men in ICT: a chance for better work-life balance*, prepared at the request of the Bulgarian Presidency (forthcoming 2018); and the report *Gender equality and youth: opportunities and risks of digitalisation* (forthcoming), prepared at the request of the Austrian Presidency (2018). More information on the data referred to in the text, including exact references can be found in the report.

Other recent publications by EIGE include:

- [Economic benefits of gender equality in the EU](#) (2017)
- [Gender, skills and precarious work in the EU](#) (2017)
- [Poverty, gender and intersecting inequalities](#) (2016)

You can explore all of EIGE's previous BPfA reports and publications at <http://eige.europa.eu/monitoring-the-bpfa>

## European Institute for Gender Equality, EIGE

The European Institute for Gender Equality (EIGE) is the EU knowledge centre on gender equality. EIGE supports policymakers and all relevant institutions in their efforts to make equality between women and men a reality for all Europeans by providing them with specific expertise and comparable and reliable data on gender equality in Europe.

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