



# Digitalisation and Gender Equality

## How are digitalisation and gender equality connected?

For decades, our everyday life has been rapidly changing due to the influence of computers and digital technologies. The Internet, which emerged at the end of the last century, but also mobile phones and broadband networks underline how ubiquitous information and communication technologies (ICT) are today – in the economy as well as in society in general.

(Digital) technology is often considered to be neutral, regardless of who developed it and where it is used. However, this does not take into account that the development and use of digital technologies, for example the development of calculation methods (algorithms) in computer systems and the selection of the data required for this, are based on decisions made by humans.

Which problem is to be solved technically? Whose perspectives and interests are taken into account when developing this solution? What social, economic, ecological consequences are taken into account? **Digital technologies are thus not neutral, but shaped by the social framework conditions and the values of the people involved.**

The **socio-technical approach** highlights this aspect: technological developments are viewed, assessed and actively shaped with regard to their respective social context – for instance with regard to the structurally unequal allocation of paid work and unpaid care work between women and men.

With regard to gender equality issues, this means: just as society is shaped by gender relations, digitalisation is shaped by gender relations as well. In turn, digitalisation has an impact on society – and thus also on gender relations.

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**Gender relations and digitalisation influence each other mutually.**

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## DIGITALISATION

In its original sense, **digitalisation** means the conversion of analogue signals – e.g. sounds, images, words – into numerical values. Digitalisation is thus a translation of the world into data. At the same time, digitalisation is a social transformation process that today affects all areas of society.

**Data** is processed by human-made calculation procedures, so-called **algorithms**, which lead to new data.

**Algorithmic systems** consist of a large number of computing processes working together in various hardware and software components. They process huge amounts of data at enormous speeds.

The **socio-technical perspective** brings together the social and the technical spheres: Technologies must be viewed, assessed and actively shaped with regard to their respective social context.

### Examples:

#### Digital sector

- » According to Destatis figures, women are still underrepresented in the field of computer science today. In computer science, the share of female first-year students has risen from 17 to 20 per cent in the past 20 years; graduations from 12 to 20 per cent. The share of women in the digital and ICT sector and among German start-up founders remains persistently low at a mere 16 per cent. This is partly due to the fact that women tend to leave the industry more quickly. One reason for this is the work culture in the industry, which Karola Holtzblatt and Nikola Marsden describe as a “hero culture”. For example, long working hours are common when it comes to “saving” and completing projects. The model for the ideal (male) entrepreneur is Silicon Valley, which is itself fuelled by venture capital. This stereotypical image has its impacts; not least on selection and funding criteria for financial support of start-up businesses in the digital industry.

#### Technology design

- » The low proportion of women and the general lack of diversity in the sector – for example in terms of ethnic origin, social background or physical ability – has an impact on the design of technology. Lopsided development teams (e.g. with heterosexual, white men) often have lopsided perspectives (the so-called “I-methodology”, according to which primarily one’s own experience is taken as a basis): (1) facial recognition programmes, for instance, recognise white, European men much better, while the hit rates for women, especially non-European, e.g. Asian or African, are significantly lower. (2) Women with PhDs are denied access to a women’s locker room with automatic entry because the system has been trained with data in which only men would hold PhDs.

#### Remote work

- » Remote work promises new opportunities for the reconciliation of paid work and family life. However, a 2019 survey by the Initiative D21 shows that women in office jobs are less likely to be provided with digital devices or equipment than men (about 70 per cent of men, but only about 60 per cent of women were equipped accordingly). Even the digitalisation boost due to the COVID-19 pandemic has not altered this disparity.

#### Platform work

- » Platform work (also called click, crowd or gig work) can open up new opportunities for people who want to pursue paid work at flexible times and independently of a fixed place of work. For orders and appropriate prices or hourly wages, it is above all the customers’ reviews and ratings that are important. As in the analogue world, these also reflect stereotypes and prejudices, though. According to evaluations of the platforms TaskRabbit and Fiverr, for instance, women received fewer reviews than men with the same qualifications. People perceived as Asian or Black received not only fewer but also worse ratings than people perceived as *white*.

#### Social media

- » According to the study by D21, 94 per cent of women and 87 per cent of men optimise their images in social media, e.g. by using filters. By showing nicer skin or more muscular shoulders, they adapt to uniform, often gender-stereotyped ideals of beauty. The staging of a happy, fulfilled and carefree life conceals effects on body satisfaction, emotions and mental health: social media use makes women and girls in particular more critical and dissatisfied with their own bodies – and subsequently fosters depressive phases as well as eating disorders.

To make the digital transformation process more gender-responsive, technology must be viewed, assessed and actively shaped with regard to its respective social context. This includes taking into account prevailing gender relations. In this way, the window of opportunity for more equality that digitalisation may offer could be seized.

## Gender relations, equality, capabilities... in the context of digitalisation

Gender equality requires looking at the interactions between gender relations and digitalisation in order to identify and dismantle structural inequalities, gender stereotypes as well as discrimination and violence.

In the Federal Government's Gender Equality Reports, **equality is defined as having a society with equal capabilities regardless of gender**. The approach of equal capabilities regardless of gender goes beyond formal equal opportunities such as the opportunity to apply for a job in the ICT sector. The approach rather implies an **actual possibility** for people **to lead a life they can decide on for themselves**.

This includes, for instance, application procedures to be free from stereotypical attributions of women's or men's understanding of technology, or that work requirements and working hours in the ICT sector are reconcilable with care obligations.

The capability approach **corresponds** to the current understanding of equality and freedom from discrimination in the **German Basic Law** (article 3, para 2 and 3 GG): elimination of existing structural disadvantages and promotion of actual equality.

Equal capabilities depend on individual and social **framework conditions**:

- » (1) **personal potentials**, like knowledge about data protection or the financial means to buy a mobile phone,
- » (2) **societal and institutional structures**, such as criteria for awarding funding for business establishment, work culture in the ICT industry, regulations for protection against discrimination/digital violence on platforms or by means of stalkerware.

### In the context of digitalisation, this means specifically:

- » ensuring equal **access** to relevant resources and competences, e.g. equipment or Internet access, knowledge about digital topics, the actual possibility to be flexible/work flexibly regarding time and place, the ability to make self-determined decisions on how to deal with data.
- » removing structural barriers to the gender-equitable **usage** of digital technologies, e.g. by providing a good range of childcare facilities to counteract the unequal allocation of care work in remote work or regulations to protect against discrimination (including digital violence) in the context of platform work and the use of social media.
- » working towards gender-equitable **design**, e.g. in the development of new technologies, in internal decisions on the substitution of jobs by robots, or in decisions on public funding to promote innovative technologies.

## Gender equality policy goals in the context of digitalisation

Gender equality policy goals, such as those named in the Second Gender Equality Report of the German Federal Government, continue to be relevant. In the context of digitalisation, the focus is particularly on:

- » gender-responsive technology development and design;
- » access to digitalisation-related skills regardless of gender;
- » access to digitalisation-related resources (digital technologies, time and space sovereignty, and informational self-determination) regardless of gender;
- » independent economic and social security through equal integration into the digitalised economy;
- » equal pay for equal and equivalent work in the digitalised economy;
- » dissolution of gender stereotypes in the context of digitalisation;
- » gender-equitable allocation and distribution of unpaid care work in the context of digitalisation;
- » reconciliation of paid work, unpaid care work for others and self-care in the context of digitalisation;



ACCESS



USAGE



DESIGN

- » reducing discrimination and fostering protection against gender-based violence in analogue as well as digital spaces;
- » gender-equitable power to shape the digital transformation in economy, politics, administration and society.

## The Expert Opinion for the Third Gender Equality Report of the Federal Government: Shaping digitalisation in a gender-equitable way

The Expert Commission for the Third Gender Equality Report has taken a socio-technical perspective to examine several questions relevant to gender equality that arise in the context of digitalisation. The Expert Opinion “Shaping digitalisation in a gender-equitable way” takes a closer look at the following four areas:

- » ICT or **digital industry, in which digital technologies are developed and disseminated**. Specifically, research in this field deals with the design of technology as well as the framework conditions for employees and founders in the digital industry.
- » **Digital economy, which** – see the platform economy – could only **emerge thanks to digital technologies**. Here, the framework conditions of platform work for the procurement of work, for example with regard to protection against discrimination, are examined.
- » **Digitalised economy or the change in paid work due to the use of digital technologies**, especially with regard to labour market structures, necessary skills, the use of algorithmic systems in personnel recruitment, and remote work.
- » **Digitalisation of society**, i.e. the **technological penetration of society as such**, for instance with regard to stereotypes in social media, digital violence as well as data and basic rights.

Last but not least, the Expert Opinion takes a look at gender equality policy structures and instruments for promoting gender equality in the context of digitalisation as a kind of “breeding ground” for the general topic of gender equality.



### Further reading:

- » The Third Gender Equality Report of the Federal Government is available (in German) at: <https://www.bmfsfj.de/gleichstellungsbericht>
- » Agency for the Third Gender Equality Report of the German Federal Government (2021): Shaping digitalisation in a gender-equitable way. Summary of the Expert Opinion of the Third Gender Equality Report of the Federal Government. Berlin: Agency for the Third Gender Equality Report. Download at: <https://www.dritter-gleichstellungsbericht.de/de/topic/50.english.html>
- » The Expert Opinion of the Expert Commission, the single expert opinions on selected topics obtained in advance, as well as documentations of the hearings with external experts are available (in German) at: <https://www.dritter-gleichstellungsbericht.de/de/topic/61.veroeffentlichungen.html>

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