



# The digital transition and persons with disabilities

Statistics on  
use of electronic durables, digital kills,  
work and participation

Summary

March 2021

**EUROPEAN COMMISSION**  
Directorate-General for Employment, Social Affairs and Inclusion  
Directorate D — Social Affairs and Inclusion  
Unit D3 — Disability and Inclusion

*European Commission  
B-1049 Brussels*

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## **Summary**

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This report has been developed under Contract VC/2020/0273 with the European Commission.

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Manuscript completed in March 2021

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## **Definition of persons with disabilities**

In the present study, the term persons with disabilities covers persons who report limitations in activities people usually do. This definition lies between the two major conceptual models of disability: the medical model and the social model of disability. According to this definition, in the EU 27, in 2018, about 24.5 % of persons, aged 16 and over, declared a disability (EU-SILC). About 7.0 % declare a severe disability (strongly limited) and about 17.5 % a moderate disability. In the EU 27, this represents 62.4 million with a moderate disability and 24.8 million with a severe disability.

However, several surveys use different proxies for disability, notably: 1. persons who consider themselves to be part of a minority in terms of disability (2.6 % of the population aged 15+), 2. Persons who face transport accessibility issues due to a disability (4.2 % to 5.3 %), 3. Persons who describe themselves as being a member of a group that is discriminated against on the grounds of disability (0.6 %).

## **1. Ownership of electronic durables and internet connection**

### **1.1 Ownership of a mobile phone**

In the EU 27, in 2018, about 94.6 % of all persons aged 15 and over declare having a mobile telephone (wide sense). Consequently, about 5.4 % do not have a mobile phone. The percentage of persons who do not have a mobile phone is 7.1 % for persons with disabilities and 5.3 % for persons without disabilities (Eurobarometer). Disabled here are persons who consider themselves to be part of a minority in terms of disability.

Women are disadvantaged compared to men. The rate of persons who do not have a mobile phone increases with age.

### **1.2 Possession of a smartphone**

The question of the possession of a smartphone is more interesting since the later implies the possibility of internet and multimedia use. In the EU 27, in 2018, about 75.3 % of all persons aged 15 and over declare having a smartphone. This rate is 70.7 % for persons with disabilities and 75.5 % for persons without disabilities (Eurobarometer). Disabled here are persons who consider themselves to be part of a minority in terms of disability.

Women are disadvantaged compared to men. The rate of persons who have a smartphone decreases with age. Concerning persons aged 75 and over, the rate of persons who do not have a smartphone is about 71 % among persons with disabilities and 73 % for others.

### **1.3 Possession of a computer**

In the EU 27, in 2018, about 82.1 % of persons aged 16 and over possess a computer. This rate is 67.2 % for persons with disabilities and 86.9% for persons without disabilities (EU-SILC). There are important differences across Member States. About 28.6 million persons with disabilities and 35.1 million persons without disabilities do not possess a computer. Disabled here are persons with activity limitations. We assume that a computer in a household can be used by all household members.

Women face a disadvantage relative to men. The percentage of persons who possess a computer decreases steadily with age for all persons, with and without disabilities, at a similar rate.

Concerning the reasons for not possessing a computer, we may note that the economic reason (cannot afford) is relatively small and constant for all age groups. On the contrary, 'No, other reason' increases significantly after the age of 45-54. Education is the dominant factor explaining the high rates of 'No, other' reason. Low digital skills among elderly people seems to constitute a significant factor explaining the high percentage of not possessing a computer. This means that, we ought to promote the acquisition of digital skills among the elderly before any initiative promoting eLearning, tele-shopping, eHealth and generally using internet by this group of persons.

A more detailed analysis by age group indicates that about 7 % of young persons with disabilities, aged 16-24, and 6 % of persons without disabilities, of the same age group, do not possess a computer. In the EU 27, they represent 205 000 persons with disabilities and 2 146 000 persons without disabilities, aged 16-24. This group of persons might encounter serious education problems when new technologies constitute an important educational tool.

#### **1.4 Internet connection for personal use at home**

In the EU 27, in 2018, about 82.1 % of persons aged 16 and over have an internet connection for personal use at home. This rate is 64.3 % for persons with disabilities and 87.9 % for persons without disabilities (EU-SILC). There are big differences across Member States. About 14.7 million persons cannot afford an internet connection (of which 6 million with disabilities) and 48.6 million persons do not possess an internet connection for other reason (of which 25 million with disabilities).

The percentage of women reporting an internet connection is lower compared to men. The percentage of elderly people (65 and over) reporting an internet connection is very low compared to younger persons (16-64). This holds both for persons with and without disabilities.

About 7 % of young persons with disabilities, aged 16-24, and 5 % of persons without disabilities, of the same age group, do not possess an internet connection at home for personal use. This represents 195 thousand persons with disabilities and 1 621 thousands without disabilities who might be excluded from education systems in a period of social distancing and lockdown.

The rate of persons who have an internet connection for personal use at home is strongly correlated with disposable income. A financial subsidy to poor individuals (households) might be a powerful incentive for the acquisition of an internet connection in order to avoid the isolation of vulnerable and disadvantaged groups.

#### **1.5 Comparison by electronic durable and internet connection**

The percentage of persons possessing/owning an electronic durable/service increases according to the following order: computer desk, tablet, laptop, smartphone and internet connection (Eurobarometer). The percentage of possession/ownership decreases by age for all goods/services. This holds both for persons with and without disabilities but persons with disabilities face a relative disadvantage in comparison to

persons without disabilities. The situation is critical for persons aged 75 and over. This group faces digital exclusion.

## 1.6 Digital poverty

Here, we focus on persons who possess neither a computer nor an internet connection. They constitute the most disadvantaged group and they face digital exclusion.

In the EU 27, in 2018, about 13.2 % of all persons aged 16 and over, living in private households possess neither a computer nor an internet connection. They represent 47.6 million persons (EU-SILC). The number of persons with disabilities is about 24.4 million (51.4 %) and persons without disabilities is 23.2 million (48.6 %).

in the age group 16-24, the percentage of persons who had neither a computer nor an internet connection was about 3 % for both groups (persons with and without disabilities). There are important differences across Member States. Globally, they represent about one (1) million young persons (disabled and non-disabled), in the EU 27. This means that this group will be excluded from the education system in a period of COVID-19 pandemic, if no specific measures are taken by public authorities.

For elderly people, we may argue that a low education level implies a low digital literacy. This does not favour the acquisition of a computer or an internet connection. For young persons, we consider that the lack of a computer and an internet connection leads to low educational achievements. There is some evidence that that the main explanatory factor behind digital deprivation for this group is poverty.

## 2. Computer use

### 2.1 Computer use at work

Before to analyse the use of computer at work, it is useful to indicate that the employment rate of persons with disabilities is significantly lower compared to persons without disabilities. Available data cover persons aged 50 to 64, in 16 Member States, in 2015 (SHARE).

In the EU 16, about 61.9 % of employed with disabilities, aged 50-64, declare that their job requires using a computer. This rate is 64.3% for employed persons without disabilities, of the same age group.

The rate of women with disabilities, aged 50-64, declaring that their job requires the use of computer is higher compared to men. But this may be due to the fact that women are overrepresented in administrative tasks. Generally, the rate of persons declaring that their job requires the use of computer decreases with age. However, the decrease is relatively small.

### 2.2 Computer skills

Computer skills of persons with disabilities are poor relative to persons without disabilities. In the EU 16, about 19.6 % of persons with disabilities, aged 50 and over, declare having at least a good knowledge compared to 34.2 % of persons without disabilities, of the same age group. Furthermore, about 47.3 % of persons with

disabilities report that they have never used a computer compared to 26.2 % of persons without disabilities.

Women are disadvantaged compared to men. This holds true both for women with and without disabilities. But this might be affected by an age structure impact. Computer skills decrease steadily with age both for persons with and without disabilities.

In the same age group 75-79, about 66 % of persons with disabilities have never used a computer. This rate is about 53 % among persons without disabilities, of the same age group. Low digital skills are a serious threat to elderly people, notably, in periods of social distancing where internet constitutes an important channel for social contacts, economic life and collection of information on health.

Computer skills increase steadily with education level both for persons with and without disabilities. About 78 % of persons with disabilities, aged 50 and over with a primary education, have never used a computer. This rate is 59 % for persons without disabilities.

There is an important difference between employed and unemployed persons. This holds true both for persons with and without disabilities. In the EU 16, in 2015, among employed with disabilities, aged 50-64, about 47 % have at least a good knowledge of computer skills compared to only 24 % of unemployed persons of the same age group. The respective rates for persons without disabilities are 53 % and 30 %. There is a clear positive relation between employment and computer skills. The improvement of digital skills ought to increase the employability of all persons.

### **3. Internet use**

#### **3.1 Frequency of internet use**

In the EU (22 Member States), in 2018, about 31.8 % of persons with disabilities, aged 15 and over, never use internet for work or personal use. This rate is 11.5 % for persons without disabilities (ESS).

It is important to note that the high rate of persons with disabilities who never use internet might include disabled persons who face accessibility barriers. However, we have to keep in mind that there is a strong age structure effect. In fact, the rate of persons who never use internet increases with age. The disadvantage of persons with disabilities is even bigger, if we take into account those who use only occasionally internet. Disabled persons here are persons 'hampered' in their daily activities.

Among persons with disabilities, the rate of women who never use internet is 35.1 % and for men 27.9 %. The rate of persons who never use or occasionally use internet increases exponentially with age. In the age group 15 to 24, the rate of persons who never use or occasionally use internet is 2 % for persons without disabilities and 4 % for persons with disabilities. The rates for the age group 75 and over are respectively 71 % and 81 %.

Persons with higher education use extensively internet.

#### **3.2 Time spent on internet**

The mean time spent on a typical day by persons without disabilities is 3.4 hours and 3.1 hours by persons with disabilities. The respective median values are 2.5 hours and 2.0 hours. These rates cover only extensive users of internet. Consequently, these data do not include disabled persons who might face accessibility barriers.

Concerning extensive users of internet, the average time spent on a typical day decreases with age both for persons with and without disabilities.

### **3.3 Internet at work**

Here, persons with disabilities are persons who consider themselves to be part of a minority in terms of disability. In the previous definitions, elderly people with disabilities have a relatively important weight. This does not hold for the present definition.

In the EU 27, in 2018, about 45.3 % of employed with disabilities use every day or almost every day internet compared to 56.0 % of employed without disabilities (Eurobarometer). Furthermore, about 14.0 % of employed with disabilities use two or three times a week internet compared to 8.1 % of employed persons without disabilities. The data cover persons aged 15 and over.

Women with disabilities use less frequently internet at work compared to men with disabilities. This gender gap does not hold for persons without disabilities, probably due to the concentration of women in administrative jobs.

The analysis by occupation provides mixed results. Generally, the intensity of internet use at work decreases with age both for persons with and without disabilities. However, due to a small sample size, the data for persons with disabilities are indicative.

### **3.4 Job search and internet**

Disabled here cover persons who consider that, over the past five years, they have been discriminated against with regard to work, for instance when applying for a job, or when being considered for a pay increase or promotion.

The analysis of job search needs to take into account hidden unemployment which is important among persons with disabilities due notably to a discouragement effect and a feeling of having being discriminated against on the ground of disability.

In the EU (17 Member States), in 2015-2017, about 28.3 % of disabled unemployed (wide definition), aged 20-64, advertise themselves for a job (for example on the internet or in newspapers) compared to 17.2 % of others (ISSP). Due to a small sample size, the data are indicative.

## **4. Political participation**

Internet represents a technology enabling communication between people. It might be used also as a new participatory tool which helps to overcome existing barriers, for example mobility barriers.

In the EU (22), during the last 12 months, about 14.8 % of persons with disabilities posted or shared something about politics online (for example on blogs, via email or

on social media such as Facebook or Twitter). This percentage is 17.7 % for persons without disabilities.

Generally, women seem less active compared to men. The respective rates are 16.2 % for women and 17.8 % for men. But an age structure impact might be present. In fact, generally, the percentage of persons who posted or shared something about politics online decreases with age.

The analysis by age group reveals that younger persons with disabilities use internet intensively as a tool to share their views on politics and as a way of trying to improve things or help prevent things from going wrong. We consider that the higher rates characterising young persons with disabilities compared to young persons without disabilities might represent a high degree of activism.

In fact, we observe that the percentage of young adults, aged 25 to 44, who posted or shared something about politics online is extremely high among persons who feel discriminated against on the grounds of disability. It reaches 61 %, in the age group 25-34, compared to 26 % of persons who do not feel discriminated on the grounds of disability.

## **5. Accessibility of websites**

Information is scarce and certain studies indicate that a limited number of public and private websites are accessible.

Some additional data covers accessibility of rail service information. This information refers to persons who never take the train. In the EU 27, among those who declare that someone in their household has an accessibility issue related to disability, about 15.5 % declare lack of accessible information (such as Braille, large print or accessible websites). This rate is 6.4 % among persons who report no accessibility problem (Eurobarometer).

If we focus on persons living alone (one-person household), about 10.6 % of persons with disabilities declare lack of accessible information. This rate is 6.9 % among persons without disabilities. These rates are indicative because the sample is relatively small. Also, the fact of living alone might be an indication that the person has a certain degree of autonomy.

## **6. Sources**

We have used microdata from the following surveys: EU-SILC UDB 2018, Eurobarometer 90.4 - 2018, Flash Eurobarometer 463 - 2018, Eurostat, European Social Survey (ESS) 2018, International Social Survey Programme (ISSP) 2015-2017 and SHARE 2015.

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