DIGITAL SOVEREIGNTY IN EQUITY: A RIGHT TO BE CLAIMED

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Digital sovereignty in equity refers to the generation of the conditions that give everyone the capacity for self-governance and autonomy in the digital sphere, as well as effective control over the technological tools they use.

1. Digital sovereignty in equity: a right to be claimed

Digital sovereignty encompasses different dimensions, all of which are important to consider and work on so that everyone can enjoy this right regardless of gender, age, social class, origin or functional diversity.

a. The right to know how our digital information and actions will be used later on.
b. The right to self-manage our information on the internet.
c. Democratic governance of digital tools: citizens' capacity to understand and participate in decisions regarding digital tools.
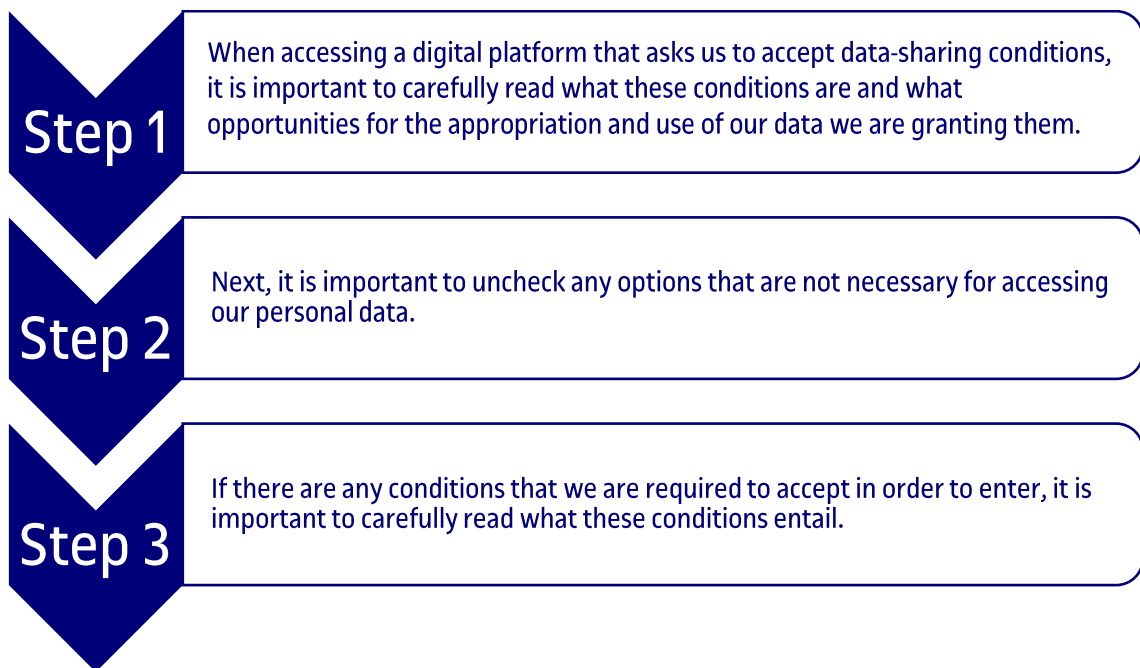
1.1. The right to know how our digitized data are used

One of the main components of the right to digital sovereignty is putting an end to the extractivism of personal data. Companies generate profits by storing, processing, and marketing the data produced when we use technology (Furman, 2018).
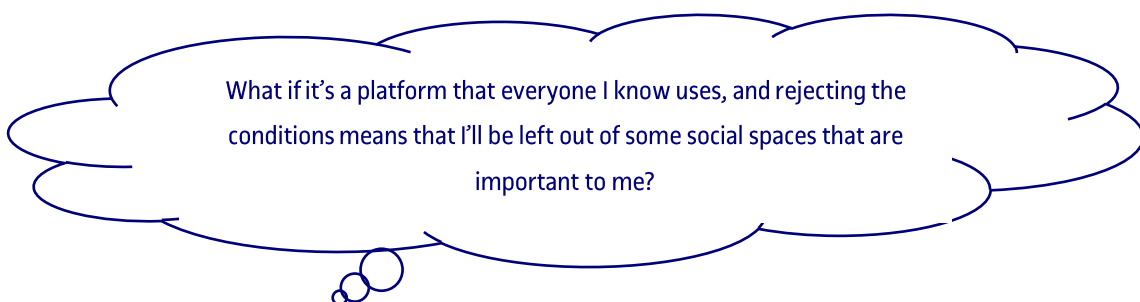
In exchange for using their services "for free", many large tech companies require that we sign contracts that cede the use of our digitized data so that they can be analysed and used for commercial purposes—if the company in question does not use the data themselves, they may sell it to third parties. This precondition for using services is a way of ceding our digital sovereignty to companies that "extract" personal information and the data produced by our

online activities and digital devices. Educational institutions play a key role in exposing the processes and mechanisms that extractivist tech companies use to do away with an important part of our digital sovereignty.

We often sign over our digital information when we click "accept" on cookie and data extraction policies. We know that individuals with lower levels of education, younger people, the elderly, and especially those with low levels of digital literacy that are most likely to accept the terms proposed by tech companies. As a result, we can use different strategies to teach students to protect their digital sovereignty.

Step 1

When accessing a digital platform that asks us to accept data-sharing conditions, it is important to carefully read what these conditions are and what opportunities for the appropriation and use of our data we are granting them.

Step 2

Next, it is important to uncheck any options that are not necessary for accessing our personal data.

Step 3

If there are any conditions that we are required to accept in order to enter, it is important to carefully read what these conditions entail.

If any of these conditions threaten our privacy, our dignity, or violate our digital sovereignty, we should reject them.

> What if it's a platform that everyone I know uses, and rejecting the conditions means that I'll be left out of some social spaces that are important to me?

In this case, with all the information we now have, we can accept the terms knowing that we are giving up digital sovereignty. However, it is also important to tell our peers that this tech company has forced us to sign an agreement so that they can use our digital data; this is to

foster critical awareness that will pressure the company not to violate its users' digital sovereignty.

This change in behaviour by the tech company can be driven by a digital mobilization that denounces the extraction of digital sovereignty, even within the digital platform itself (for example, a social network). As teachers, it is important to share alternative platforms that respect users' digital sovereignty and do not abuse our digital information.

1.2.   The right to self-manage our information on the internet

Another important aspect of digital sovereignty is the capacity to manage and control our digitized information. The protection of how our personal data are treated is a fundamental right, as stated in article 8 of the *EU Charter of Fundamental Rights* (European Union, 2000). This right has been incorporated into European and member-state regulations. In Spain, this was implemented through *Organic Law 3/2018, of December 5, on the Protection of Personal Data and Guarantee of Digital Rights* (Portal Jurídic de Catalunya, 2018).

> Educating young people about their right to control and protect their personal data is key to them knowing when these rights are being violated and how they can defend them.

In spite of existing regulations and the fact that it is recognized as a fundamental right, citizens do not enjoy full sovereignty over the control of their personal data on the internet. Although many private virtual platforms seemingly offer their services for free, users must renounce their digital sovereignty and cede their personal data in exchange. As noted by Morozov (2018), in many free digital platforms such as Facebook, Instagram or TikTok, "the poor pay with data."

1.3.   Democratic governance of digital tools

Another central aspect of digital sovereignty is users' ability to understand how digital technologies work, and to participate in their co-design and development processes. For this reason, digital sovereignty focuses on the importance of building and using technological tools that are open source, collaborative, non-commercial and transparent, so that everyone can exercise their rights as digital citizens.

It is increasingly important for technologies to make the code they are created with explicit and open, enabling users to further develop them. Therefore, to ensure that everyone enjoys digital sovereignty, it is very important that these free, open and collaborative technologies be accessible to all citizens. This is one of the major challenges for the companies and groups designing technologies. At the same time, it is important to address this by educating children and young people so that everyone –regardless of their gender, social class or origin– can develop the digital skills they need to master technological programming and open-source code.

We have a long road to travel between infancy and youth, as digital sovereignty is a right that only part of the public is beginning to exercise, and that women –especially those who are working class, migrants, or who have non-standard abilities– are often denied.

2. The challenges to guaranteeing digital sovereignty in equity in open technologies: presence on the internet, or who makes the rules in participatory digital spaces

2.1. Who creates open and collaborative technologies?

Open and collaborative technologies were originally proposed as an alternative that would empower citizens and allow them to participate on an equal footing in the co-production of technologies (peer to peer, or P2P) regardless of their gender, class, origin or age; it was seen as a way to make technologies more democratic. Nevertheless, studies looking into the issue on a European level have identified gaps in gender, age, ethnic origin, socioeconomic status and urbanity in participation in collaborative digital tools (Eichhorn, Hoffmann, and Heger 2022).

When it comes to the use of technological tools in the realm of the collaborative economy, men show a more strategic use focused on the tangible results of economic service, while women more frequently use the internet for social connections (Eichhorn, Hoffmann and Heger 2022). This gender inequality in more strategic uses is also visible in how men and women with more socioeconomic resources use the internet, as compared to working-class women (Arroyo, 2023).

In digital spaces where users have the capacity to define rules of use and prestige, who is present and who participates is particularly important. Empirical data show that only 5.4% of the people who take part in the creation of free software are women (Beneschott, 2023).

Furthermore, in the use of collaborative technological platforms for creating community-consensual knowledge such as Wikipedia, only 11.6% of editors are women (Minguillon, 2021).

The fact that the rules are set by the people who occupy a space first and most frequently – typically white, heterosexual, and middle-to-upper-class men– often distances technologies even more from women—especially women who are working class, migrants, or who must address functional diversity. As a result, it is especially important that digital spaces be occupied by a diverse range of individuals on an equal footing.

To begin to mitigate these significant inequalities in the generation of content and technology based on free software, we should analyse statistics on the frequency of internet use and digital skills among young people.

2.2. Where can we start? From frequency of use to digital skill level

If we look at the statistics on the frequency of computer use, we find that boys use such devices more intensively than girls. In the 2017 EU-28 average, 75% of girls used the internet on a daily basis as compared to 79% of boys: a 4% difference.
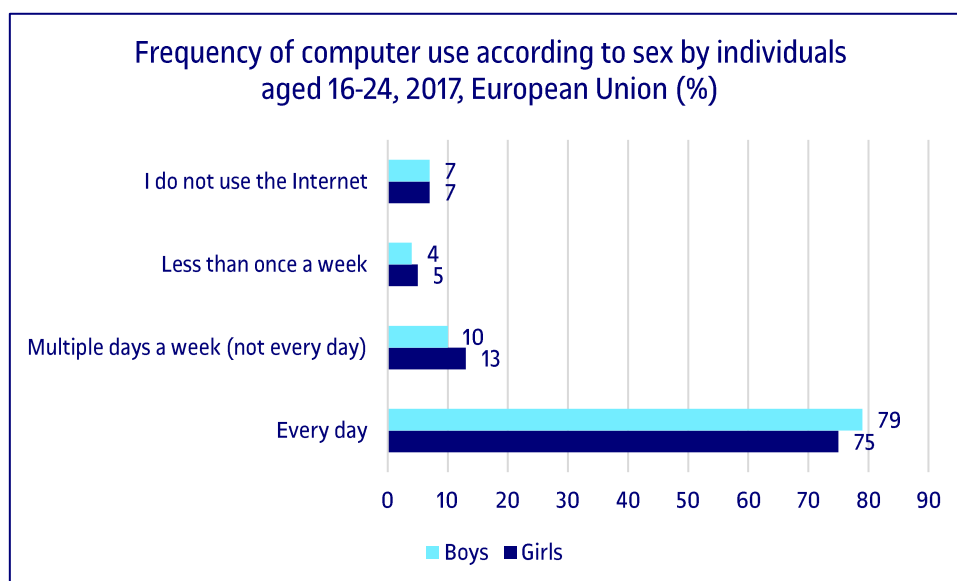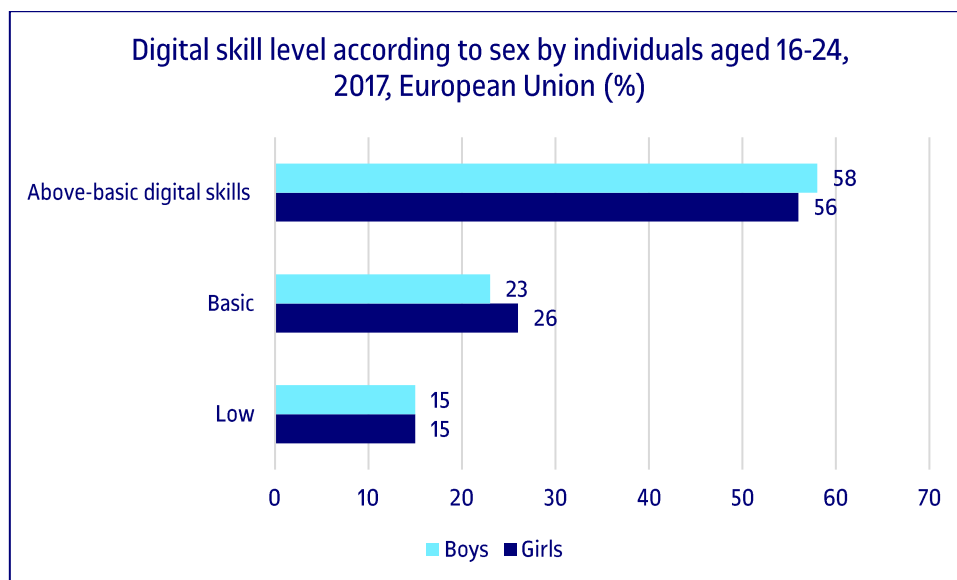

Source: Eurostat

A higher frequency in internet use among boys also leads to boys developing greater digital skills and greater self-confidence in their own digital abilities.

Therefore, it is very important for boys and girls to become aware of this fact and the importance of the presence of women in internet use, especially in digital spaces where users

define the rules of use and prestige. It is also important to contribute to the establishment of rules in the digital space that are not androcentric, sexist, racist, classist or LGTBI-phobic.

We can also observe higher digital skill levels among boys. 58% of boys have digital skills above the basic level, compared to 56% of girls.

Digital skill level according to sex by individuals aged 16-24, 2017, European Union (%)

Skill level	Boys	Girls
Above-basic digital skills	58	56
Basic	23	26
Low	15	15

Source: Eurostat

These differences in digital skill level are also related to individuals' self-perception of their own ICT abilities. As studies on the matter have shown, girls tend to see themselves as less capable than boys, even when their actual abilities are equal or superior to those of their male counterparts (Sáinz & Eccles 2012). The fact that girls often underestimate their own ICT and mathematical abilities affects their use of technology and promotes gender stereotypes.

Furthermore, girls' lack of confidence in their technological abilities affects their use of advanced technology and the development of advanced digital skills. This has a direct impact on women's digital sovereignty, as greater digital skills lead to a greater ability to self-govern one's own digital actions.

This is particularly critical in programming skills and the creation of new technologies, where a larger gender gap has been detected. It is in the design of technologies that the capacity for digital sovereignty is at its greatest, as it is where the types of technological tools that citizens will use are defined. As a result, the development of advanced skills among girls is essential to achieving digital sovereignty in equity.

It is also important to incorporate an intersectional perspective, as other digital divides –such as those based on age, level of studies or immigrant status– are present as well, and they interact with gender divides. The promotion of the development of high-level and essential digital skills while taking into account inequalities based on gender, age and class is essential to achieving digital sovereignty in equity.

TIPS

★ For digital sovereignty in equity, we need to make boys and girls aware that the rules and prestige in digital technologies are defined by the people who design those technologies. Students should also know that in open technologies, these elements are defined by the individuals occupying the space.

★ We need to encourage girls to become active agents in technology design, to increase their self-confidence in their own digital abilities, and to develop advanced digital skills.

RESOURCES

Recommended reading:
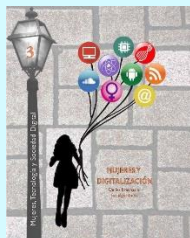
The book *Mujeres y Digitalización. De las brechas a los algoritmos.* Written by Milagros Sáinz, Lídia Arroyo and Cecilia Castaño, and edited by Instituto de la Mujer and ONTSI.

Available at:
https://www.inmujeres.gob.es/diseno/novedades/M_MUJERES_Y_DIGITALIZACION_DE_LAS_BRECHAS_A_LOS_ALGORITMOS_04.pdf

Educational materials:

Collection of educational units on digital citizenship, written by Ajo Monzó i Almirall.

Available at:
https://www.caib.es/sites/infojove/ca/recull_dunitats_didactiques_de_ciutadania_digital_2021/

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To find out more:

Check the information on this project and other resources for digital empowerment with a gender perspective at:
https://gender-ict.net/projects/gender-digital-empowerment/