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DIGITAL LITERACY AS A HUMAN RIGHT IN THE 21ST CENTURY



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Author: Sofia Likavec

Affiliation: University of Dayton Human Rights Center/Summer Intern, Gender Tech Initiative
Uganda

Email: likavecs1@udayton.edu

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Administrative Coordinator
University of Dayton Human Rights Center
3rd floor, Keller Hall,
300 College Park, Dayton, Ohio, USA, 45429

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Contributing Author: Gender Tech Initiative Uganda.
Email: info@genderinitiativeug.org

Sponsor: University of Dayton Human Rights Center, Dayton, Ohio, USA
Email: hrc@udayton.edu

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Conflict of Interest

The authors declare no conflict of interest.

Abstract

A digital divide related to gender is spreading like a plague around the world. To be digitally literate is to understand digital information, platforms, communication, safety, and problem solving. Digital literacy is interconnected to several articles of the United Nation's Universal Declaration of Human Rights (UDHR). Educating women on digital literacy is necessary for living during the 21st century. Traditionally female-dominated jobs are beginning to require digital skills.

Communication and Collaboration.

One demonstrates the ability to exchange ideas and information via digital platforms. This involves effectively navigating digital platforms, productively communicating information to others, and recognizing “cultural and generational diversity”⁶.

Digital Content Creation

This is the ability to effectively and legally create and edit digital content. One should have the knowledge to successfully create digital content, give instructions to a computer system, and correctly apply copy-right and licenses.⁷

Safety and Cybersecurity Awareness

When using digital platforms, the user should have knowledge of the potential risks of technology. It is important to know how to reduce these risks while keeping private data safe. One needs to be aware of potential hacking and data breaches. This comes with knowing how to safely share ideas while withholding personal information.⁸ Technology may also pose a threat to other digital users. One should be aware of technologies for physical, psychological, and social well-being while being able to avoid putting these at risk.⁹ Individuals should also be aware of their carbon footprint and the effect that technology has on the environment.

Problem Solving

An individual should be capable of identifying and solving contextual problems within digital content. To do this, they should know how to question assumptions and potential bias within a digital platform. Innovative use of technological tools and keeping up to date with digital evolution is essential.¹⁰

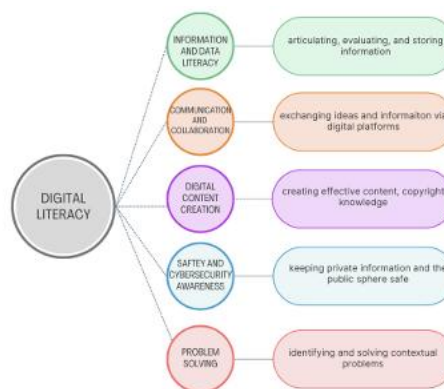


Figure 2: A diagram of the five pillars of digital literacy (created on Canva; template by Canvalisa)

Digital literacy in the UDHR

The concept of digital literacy as a human right changes the narrative. It connects each of the five pillars to not just the idea of human life, but also, 21st century survival. The Universal Declaration of Human Rights (UDHR) consists of 30 articles, each addressing a universal, fundamental human right. Of these 30 articles, five of them are interdependent on digital literacy in context with the 21st century:

⁶ (Evans 2025)

⁷ (Evans 2025)

⁸ (UOTP Marketing 2025)

⁹ (Evans 2025)

¹⁰ (Evans 2025)



Image from copernicusberlin.org

Article 19

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Everyone has the freedom to express their own opinions and to seek other communal information and opinions. Today, over three quarters of adults worldwide get at least a portion of their news from digital platforms.¹¹ To obtain this digital knowledge, an individual must know how to navigate the digital news platform and identify facts from misinformation and disinformation. Only then can the individual create their own opinion on a matter and have the ability to share it via other digital platforms (social media). Article 19 relies heavily on digital literacy for both developing an opinion and expressing it.

¹¹ (Kemp 2025)

Article 21

Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.

Everyone has the freedom to participate in their country's government. Similarly to *Article 19*, this article requires the use of digital news and media. Voting is the most common way that a citizen can participate in their country politically. A citizen is unable to vote confidently or accurately without the knowledge and ability to navigate digital media. Digital media allows people to receive accurate information on their government. Additionally, a digital portion is usually involved with today's voting registration process. Without the ability to navigate a digital platform, one is unable to complete their voter registration and, therefore, unable to participate in the government of their country.

Article 23

Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.

Everyone has the right to work where they wish and protection against unemployment. As mentioned in the *Introduction*, technological literacy is predicted to increase in skill importance by 67.7 percent between 2020 and 2027. As the third fastest growing skill in the job industry, digital literacy is a necessity.¹² A lack of digital literacy may result in a lack of ability to get

¹² (World Economic Forum 2023)

a job. Furthermore, digital job applications are becoming increasingly popular. One is unable to be protected from unemployment if they do not have the knowledge or access required to apply for a position. To be protected from unemployment, financial literacy is also a necessary factor. About two-thirds of the world population makes and receives payments via digital platforms¹³. Digital literacy is becoming a required skill for handling personal finances.

Article 26

Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit

Everyone has the right to fundamental education that is mandatory and free of charge. According to a UNESCO study, 50 percent of the world's lower income secondary schools were connected to the internet for educational purposes in 2022¹⁴. As schools are increasingly adapting to digital platforms for learning, students need to be taught how to use these platforms. This allows students to receive education that is effective and beneficial to the highest standards.



Image from chroniccarecollaborative.org

Article 27

Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

Everyone has the freedom to participate in cultural community and scientific advancements. Within the cultural context, once again, digital media and news play a major role in communal interaction. Technology itself has intertwined itself with culture in the 21st century: cultural traditions, practices, and urban symbols are constantly being shared and viewed on digital media platforms. Technology is also shaped by culture. Dr. Ramesh Srinivasan, an associate professor at UCLA, experienced this idea first-hand while creating a technological system around Native American culture:

...we basically created a system around the knowledges and categories and concepts that were at the core of these communities. And to me, that was very fascinating to think about how such a system could be designed

¹³ (Brandt 2025)

¹⁴ (UNESCO Institute for Statistics)

from the bottom up, not just based on metaphors, but based on concepts and ways of knowing the world that are important to these communities.¹⁵



Ramesh Srinivasan, an associate professor at UCLA, gives a TED Talk on “How culture and technology create one another”; image taken from tedx.ucla.edu

Is there a lack of digital literacy?

It has been shown that today, digital literacy is a growing skill that is needed in day-to-day life. It is becoming essential for work, job applications, financial stability, government participation, and education. However, the 2018 PISA Assessment shows that only 10 percent of 15-year-olds worldwide used technology on average for more than one hour per week in math and science classes. It has been proven that this low usage is not linked to low accessibility to resources: the 2018 International Computer and Information Literacy Study (ICILS) found that of the 13 countries that participated in the study, all but one had information and communication technology (ICT) resources available in schools. A lack of digital usage in the classroom is not the only flag for concern; there is an alarming digital divide between higher-income and lower-income countries. At the start of 2025,

Uganda had an internet penetration rate of 28 percent, Kenya of 48 percent, and Morocco of 92.2 percent¹⁶. All three of these countries are classified as lower to middle income according to the World Bank, despite the drastic differences in internet penetration rate.

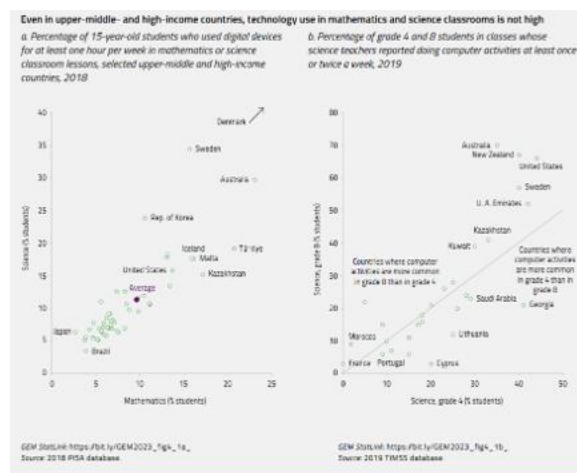


Figure 3: The percentage of students who used digital devices for at least one hour per week in math and science class based on country; the percentage of students in grades 4 through 8 whose science teachers reported using computer activities at least once a week based on country (GEM Report 2024)

This data emphasizes a need for worldwide education in digital literacy. Students who lack digital literacy and technological skills will struggle to thrive in the workforce. Minority groups such as people of color, elderly, and women struggle with a digital divide from unequal payment, living arrangements, education, and other public services. The following explains why women are especially reliant on technology and why education in digital literacy is essential to their survival.

¹⁵ (Srinivasan 2020)

¹⁶ (Fivable 2024), (Kemp 2025)

Why the concern for women and young girls?

Throughout history, the majority of women have worked in the private sphere of their homes. When men were working in the public sphere, women were taking care of cooking, cleaning, and their children. Although more women are being seen in the workforce today, the stereotype has not changed. In a 2016 study by Yale, about 64 percent of women and 80 percent of men were employed within 18 selected countries¹⁷.

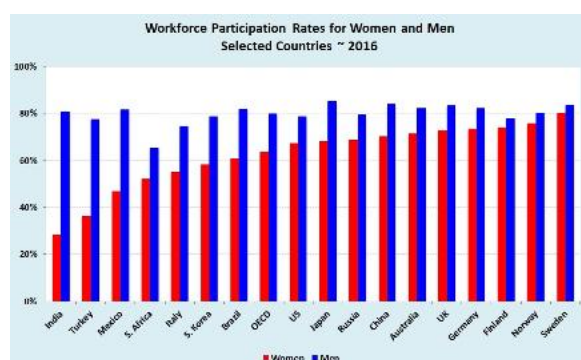


Figure 4: Percentage of employed men and women based on country (Chamie 2018)

Overall, women continue to stay at home to take care of the household, more so than men. In the 21st century, access to technology is more important than ever in the household. A U.S. Bureau of Labor Statistics survey showed that 36 percent of employed women worked remotely full-time¹⁸. This does not include women who may take virtual workdays at their in-person job. Virtual work gives women flexibility to take care of household chores. It gives women an opportunity to be employed while still being able to work in the private sphere.

One of the household chores mentioned is cooking. On average, women cook over twice as much as men in a week¹⁹. The internet is the most common place to find recipes due to how costless and efficient it is. Knowing how to navigate the internet is a skill gained through becoming digitally literate.

The percentage of stay-at-home mothers in the U.S. nearly doubled between 2022 and 2023.²⁰ In addition to needing digital literacy to work remotely, a mother also needs to be digitally literate to entertain the children. Video games, television shows, and YouTube videos are all forms of entertainment where a mother can easily work while her child is playing.

Another reason to consider working remotely is period pain; 5-10 percent of women experience pain during menstruation that affects their lifestyle.²¹ Virtual work days allow not only flexibility for the household, but flexibility for personal health and well-being. This is beneficial when considering the severity of menstrual pain world-wide.

Conclusion

The study of human rights takes into account the domino effect of interdependency; if one universal right from the UDHR is not being protected, the rest are bound to collapse. If people do not know how to manage digital finances, they cannot get a job, taking away their right to employment. If people do not know the

¹⁷ (Chamie 2018)

¹⁸ (U.S. Bureau of Labor Statistics 2024)

¹⁹ (Aubrey 2023)

²⁰ (Werber 2023)

²¹ (Haleon)

negative impact of AI software on the environment, natural resources will become scarce, taking away the right to living necessities like food and clean water. If people do not know how to identify facts from myths online, mis- and disinformation will spread, taking away the freedom to fair and free elections and non-discrimination²². Digital literacy is not a matter of freedom, but a matter of survival in the 21st century.

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²² (GED 2023)

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