

Information Technology Literacy, Media Literacy and Digital Literacy in the Digital Age

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Abstract

In today's digital age, Information Technology (IT) literacy, Media literacy and Digital literacy are fundamental skills for civic participation, employability and lifelong learning. This article explores the definitions and interconnections of these concepts, highlighting how mastery of them is crucial for effectively navigating the complex information and technology landscape. The implications of lacking these skills are discussed, and strategies for promoting their development in educational and social contexts are proposed.

Keywords: *Information Technology Literacy, Media Literacy, Digital Literacy, Lifelong Learning.*

Introduction

Rapid technological evolution has radically transformed the way we access, process and communicate information. In this context, concepts such as Information Technology (IT) Literacy, Media Literacy and Digital Literacy have emerged as essential pillars for active citizenship and participation in contemporary society. Although often used interchangeably, they represent distinct but interconnected facets of a broader spectrum of skills necessary to operate effectively in the digital world. This article aims to analyse each concept, highlight their relationships and emphasise their critical importance.

The Recommendation of the Council and of the European Parliament on key competences for lifelong learning (EU 2006/9621EC) introduced the term 'digital competence' into the European institutional lexicon. This document marks a turning point for European education systems, as it modifies the framework of basic skills, including digital competence alongside seven other skills, in addition to the traditional three basic skills (reading, writing and arithmetic).

2. Information Technology Literacy

Information Technology (IT) literacy refers to the ability to use a variety of technological tools, hardware and software, to access, manage, integrate, evaluate and create information. It involves understanding the basic principles of how computer systems work, familiarity with common applications (such as word processors, spreadsheets, databases and presentation software), and the ability to solve basic technological problems. It is not just about knowing

“how to do” (technical skills), but also about understanding “why” certain technologies are used and what their implications are. Today, it is an essential skill for interacting effectively not only with devices and software, but also with the socio-technical processes that surround them. It is not just a matter of acquiring operational skills, but of developing a critical and conscious understanding of the use and role of technology in the contemporary world.

Key IT literacy skills include the effective use of hardware (computers, smartphones, tablets) and software (operating systems, office suites, web browsers), i.e. technical competence; and the efficient organisation and retrieval of data, i.e. information management. These skills include both the identification and resolution of basic technical malfunctions, known as problem solving, and an understanding of issues relating to privacy, data security and copyright. One of the emerging aspects of IT literacy concerns digital security and privacy. The simple ability to use technological tools must be accompanied by the ability to recognise risks, such as phishing, malware, online scams and personal data breaches. Educating people in IT literacy also means promoting security practices, such as the use of strong passwords, regular software updates, encryption and conscious management of privacy settings on digital platforms.

This awareness is essential to protect oneself and one's information in an increasingly complex and interconnected technological environment. In addition to the direct use of technology, IT literacy acts as a cross-cutting skill in many areas of work and education. In the professional world, for example, knowing how to use management software, communication platforms and digital collaboration tools is now a fundamental requirement.

In education, IT literacy enables people to access online resources, participate in distance learning and carry out research effectively. Therefore, this skill is not only an end in itself, but a means of accessing and interacting with many other areas of knowledge.

To promote the development of IT literacy, an integrated approach is needed that involves schools, universities, training centres and businesses. Furthermore, training must be continuous, accompanying people on their lifelong learning journey to keep them effectively up to date with technological developments. The spread of workshops, practical laboratories and dedicated online platforms can help to create a digitally competent and resilient society.

3. Media Literacy

Media literacy is the ability to access, analyse, evaluate and create messages in a variety of media forms. In a world saturated with information from different sources (traditional and digital), media literacy is crucial for developing critical thinking and discerning between reliable sources and disinformation. It goes beyond simply understanding texts, extending to the analysis of images, sounds, videos and other forms of multimedia communication.

The fundamental components of media literacy include knowing how to identify and use different media sources, but also understanding how the media construct messages, identifying the underlying intentions, perspectives and values. In addition, it includes the ability to evaluate, for example, by judging the reliability, credibility and bias of media information. Media literacy also means producing media content responsibly and effectively and understanding the impact of media on society and on one's perception of reality. In a global and digital context, characterised by information overload and the spread of fake news and disinformation, media literacy plays a fundamental role in active and critical citizenship.

According to UNESCO, media literacy enables citizens to understand the functions of the media and other information providers, to critically evaluate content, and to be both users and creators of media content. This also implies the ability to transform information into knowledge and to use information in an ethical and democratic manner, thus contributing to an informed social dialogue.

A frequently cited model is the 5Cs of media literacy, namely:

Culture (cultural awareness): recognising how different cultures influence media production and reception;

Critical thinking: analysing and questioning media messages and sources;

Creative production: the ability to create effective and responsible media content;

Comprehension: understanding media language and codes;

Citizenship: using media literacy as a tool to actively participate in society.

From an educational perspective, media literacy is taught through Media Education, a process that develops literacy skills (media grammar and syntax), critical skills (independent understanding of media content) and productive skills (the ability to 'write' or create content in different media formats). The tools of semiotics—which study signs and symbols—are fundamental for developing critical analysis of messages, helping individuals to consciously filter the images, videos and news to which they are exposed.

In addition, media literacy includes emotional and ethical dimensions, encouraging individuals to develop the ability to communicate respectfully, take responsibility for their use of media, and recognise the influence of media on their perception of reality and social behaviour. This aspect is particularly relevant in relation to propaganda, fake news and the manipulation of public opinion, issues that media literacy helps to combat by providing the tools for conscious and critical consumption. In short, media literacy is key to navigating the contemporary media landscape effectively and safely, promoting not only technical skills but above all critical awareness, responsible creativity and social participation. Potter (2013, 22-3) defines ML as “a set of perspectives that we actively use to expose ourselves to mass media in order to interpret the meaning of the messages we encounter”.

Media scholars such as Baran in 2014, identify eight fundamental elements of media literacy:

1. *A critical thinking skill that enables audience members to develop judgements about media content.* Thinking critically about content users is the very essence of media literacy. Media consumers must responsibility for the outcome of their content choices.
2. *An understanding of the mass communication process.*
As users understanding how mass media work and how their various components relate to each other, they can form expectations about how media messages can benefit or harm them.
3. *Awareness of the impact of the media on the individual and society.*
A lot of media are an agent of change and influence people at all levels. If users ignore the impact of the media on their lives, they run the risk of being involved in and carried along by that change rather than controlling or leading it.
4. *Strategies for analysing and discussing media messages.*
To use media thoughtful and meaningful messages, users need a basis on which to basis for thought and reflection. If we, we must possess. Users can use critical tools to interpret media messages, or meaning can be imposed imposed on them.
5. *An understanding of media content as a text that IDE information about users' needs culture and life.*
A culture and its figures, attitudes, values, concerns and myths become known through communication. For modern cultures, media messages increasingly dominate this communication, shaping their understanding.
6. *The ability to enjoy, understand and appreciate media content.*

ML does not mean rejecting media messages, or always being suspicious of and cultural degradation. Consumers can improve their understanding and appreciation of media texts. Learning to enjoy, understand and appreciate media content includes the ability to use multiple access points - approaching media content from a variety of perspectives and deriving many levels of meaning.

7. *Developing effective production skills.*

ML assumes that the effective and efficient understanding of media content can be production skills that enable users to create their own multimedia messages. The online platforms, in particular, require effective production skills.

8. *Understanding the ethical and moral obligations of media professionals.*

To make informed judgements about media performance, users must be aware of the competing pressures on professionals as they do their work. They need to understand the official and unofficial operating rules of the media.

4. Digital literacy

Digital literacy is a broader and more inclusive concept, which often serves as an umbrella term for IT literacy and media literacy, adding further dimensions related to social interaction and online participation. It refers to the ability to find, evaluate, use, share and create content using information technologies and the Internet in a wise, safe and ethical manner. Digital literacy emphasises the social and participatory dimension of the digital environment, including the ability to communicate and collaborate online.

Key elements of digital literacy include:

- Technical skills: the foundations of IT literacy for using digital tools.
- Information skills: Ability to search for, evaluate and manage information online (overlapping with media literacy).
- Communication skills: the ability to communicate effectively and appropriately through digital platforms.
- Collaborative skills: Working cooperatively in virtual environments.
- Safety skills: Protecting personal data, privacy and online security.
- Problem-solving skills: Adapting to new technologies and solving complex problems in the digital context.
- Ethical and social awareness: Understanding the impact of one's online actions and acting responsibly and respectfully.

These three concepts are not mutually exclusive, but overlap and reinforce each other:

IT literacy provides the fundamental technical skills needed to access and manipulate digital information, which is then critically analysed through media literacy; media literacy refines the ability to evaluate sources and content, an essential skill in the vast and often disordered digital information landscape. Digital literacy integrates both, adding the dimension of participation, content creation and responsible digital citizenship. Without IT literacy, digital media cannot be accessed, and without media literacy, digital content cannot be critically evaluated. In summary, IT literacy focuses on tools, media literacy on content and its impact, while digital literacy encompasses the entire digital ecosystem, including social, ethical and participatory aspects. The lack of these skills creates a 'digital divide' not only in terms of physical access to technology, but also in terms of the ability to use it effectively and critically. This can lead to social and labour exclusion with difficulties in accessing online public services, job opportunities and participation in civic life. In addition, there is greater susceptibility to fake news, propaganda and online scams, a lack of awareness of the dangers of phishing, malware

and privacy breaches, with risks to personal security. There are also difficulties in accessing online educational resources and lifelong learning.

Conclusions

Information Technology (IT) Literacy, Media Literacy and Digital Literacy are the three fundamental pillars of informed citizenship in today's digital age. IT literacy enables individuals to use technological tools effectively and understand how they work and their implications, promoting technical autonomy that is essential in all professional and social contexts. Media literacy strengthens critical thinking and the ability to interpret messages from a multitude of sources, enabling people to distinguish between reality, opinion, manipulation and disinformation. Finally, digital literacy integrates these dimensions by adding active and responsible participation in digital communities, the protection of personal data and the ethical management of online resources. The interconnection between these skills not only prepares people to face the challenges of an increasingly complex world, but also promotes active participation, dialogue and personal and collective growth. Investing in the development and cross-cutting dissemination of these literacies therefore means betting on a more inclusive, critical, creative and resilient society—one that is capable of seizing the opportunities and mitigating the risks of digital transformation.

Only by embracing these skills can each individual truly become a protagonist rather than a spectator of their own digital future. In a world increasingly mediated by technology, the development of IT literacy, media literacy and digital literacy is imperative for all individuals. Educational institutions, governments and civil society have a crucial role to play in promoting these skills through updated school curricula, integrating these skills at all levels of education, from primary school to university. Adult, al and professional training programmes must be offered; national digital literacy strategies must be developed that take into account the needs of different segments of the population.

Raise awareness through information campaigns to increase awareness of the importance of these skills. Investing in the development of these skills means investing in a more informed, critical and participatory citizenry, capable of facing the challenges and seizing the opportunities of the digital age.

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