

Critical thinking applied to media and digital literacies

Paulo M. Barroso

(Escola Superior de Educação, Instituto Politécnico de Viseu)

ORCID: 0000-0001-7638-5064

(pbarroso@esev.ipv.pt)

Paulo M. Barroso (short bio): Professor no Departamento de Comunicação e Artes, Escola Superior de Educação, Instituto Politécnico de Viseu, e investigador integrado no ICNOVA.

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Pensamento crítico aplicado às literacias mediáticas e digitais

Resumo (PT): Quais são os benefícios do pensamento crítico para a prática diária de consumo de conteúdos mediáticos? Quais são os critérios de qualidade da informação nos *media* e redes sociais? O pensamento crítico é um processo mental cuidadoso e perspicaz de análise e avaliação. Nos usos e influências dos *media*, é a capacidade de compreender conotações, argumentos ideológicos e pressupostos implícitos que muitas vezes são informações falsas ou persuasivas. Este texto é uma perspectiva sociológica sobre a relação entre o pensamento crítico e as literacias mediáticas e digitais. Com base numa abordagem teórica e conceptual, suportada por uma pesquisa bibliográfica, defende-se a atitude crítica como ferramenta de literacia mediática. O objetivo é caracterizar o pensamento crítico, relacioná-lo com a literacia mediática e destacar a crítica como ferramenta contra a desinformação na esfera pública (digital).

Palavras-chave: Digital, Literacia, Literacia mediática, Media, Pensamento crítico.

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Abstract (EN): What are the benefits of critical thinking for a daily practice of media content consumption? What are the information quality criteria in the news media and social networks? Critical thinking is a careful and insightful mental process of analysis and evaluation. Applied to the media uses and influences, critical thinking is the ability to understand connotations, ideological arguments and implicit assumptions that are often false or persuasive information. This text is a sociological perspective on the relationship between critical thinking and media and digital literacies. Based on a theoretical and conceptual approach, supported by a bibliographic research, critical attitude is defended as a media literacy tool. The objective is to characterize critical thinking, relate it to media literacy and highlight the criticism as a tool against disinformation in the (digital) public sphere.

Keywords: Critical thinking, Digital, Literacy, Media, Media literacy.

Introduction

Criticising is an activity of understanding and interpretation, on the one hand, and distinction and evaluation, on the other. Criticising is at the basis of the emergence of ancient Greek philosophy, namely the art of rhetoric as a technique of persuasion in the 5th century BC.

To criticise is to discriminate. However, to discriminate it is necessary to know, think and reflect, which are interconnected activities and are at the basis of western philosophical rationalism and the birth of philosophy, namely the so-called “Greek miracle”, i.e. the passage from *Myth* to *Logos*. “The defeat of myth by reason, of mythos by logos, was once considered a central part of the ‘Greek miracle’” (Fowler, 2011, p. 45). To think is to try to better understand the world in which we live; it is to discover how things are and why they are as they appear to us. Therefore, for this desideratum and process of knowledge and thought, criticism is necessary.

In all his dialogues, Plato presents the reflective abilities of Socrates and the adequacy of his method of general knowledge of life and the subjects that are of interest of citizenship and the democracy of collective life in Ancient Greece’s embryonic public sphere. As in the classical Greek antiquity, modern societies are faced with numerous issues and problems that can only be well understood by citizens through this Socratic method of questioning and criticism. For Socrates, the precursor and promoter of critical activity, analysis and evaluation are part of the necessary and demanding process of criticism.

In this regard, Elder and Paul point out the importance of questioning, the critical attitude, and the Socratic method of critical thinking. In *The thinker’s guide to the art of Socratic questioning*, Elder and Paul (2016, p. 13) state that understanding critical thinking is essential to effective Socratic dialogue.

The terms “critic”, “critique”, or “criticism” have their etymological origin in the Greek word *krinein* (κριτική), meaning “judge”, “decide”. Criticising is essentially judging something. Criticising is a skill and criticism is a tool to better understand and evaluate something. One can only criticise if one has this ability and desire to understand better and thoughtfully assesses something, either favorably or negatively. This original Greek sense of the word *krinein* means a serious examination and judgment of something, i.e. “to separate to distinguish”.

Circa 25 centuries ago, Socrates inaugurated the dialectical method of questioning everything (not passively accepting information without testing it) and of criticising to understand and deliberate, exorcising myths and wrong or preconceived ideas, implicit assumptions, prejudices and stereotypes, connotations (unclear messages), ideological arguments and points of view, false and persuasive information. In a way, Socrates began this approach to learning that may be also called “reflective thinking” (Fisher, 2011, p. 2). According to Dewey’s *How we think*, the critical thinking or reflective thinking is “active, persistent, and careful consideration of a belief or supposed form of knowledge in the light of the grounds which support it and the further conclusions to which it tends” (Dewey, 1998, p. 9).

In today’s modern societies, where information is a plethora and manipulation, deception and persuasion strategies abound, this ancient method of criticism is fundamental to train any citizen with media and digital literacy skills (related literacies, since the media are digital) and defend against the threats to truth and democracy that constitute disinformation.

This text focuses on a comprehensive sociological perspective about the relationship between critical thinking and media and digital literacies, developing a theoretical and conceptual approach based on bibliographic research, in order to support the thesis of the relevance of criticism as a fundamental activity and tool of media literacy, which is also inherently digital.

1. What is critical thinking?

The expression “critical thinking” seems redundant, as the two terms that compose it, “thinking” and “critical”, refer to the same sense of cognitive activity and processing. Thinking is the process of using the mind to consider something carefully. Thinking allows criticism, which may be positive or negative, constructive and comprehensive or destructive and harmful. Criticism is a tool for the effectiveness of the understanding and for a serious examination and judgment of something. According to the *Merriam-Webster English Dictionary*, to criticise is to evaluate, to consider the merits and demerits of and judge accordingly. Therefore, critical thinking is a thinking characterized by careful evaluation and judgment. The meaning of the word “critical” that matters in this approach and for media literacy is what underlies the etymological meaning of the Greek term

krinein, the ability to make a decision or form a judgment, i.e. the ability to distinguish alternatives, ideas, hypotheses, opinions.

As Cottrell (2005, p. 10) states, “some people assume that ‘criticism’ means making negative comments”, which is a misunderstanding of the concept. Criticism is not negative *per se*. On the contrary, criticism is a quality, a capacity. Exercising a critique means carrying out an evaluation based on criteria that separate the wheat from the chaff, the essential from the superfluous, the true from the false, what has quality and public interest from what does not, information that is relevant and pertinent from that which is not and to make this distinction in an immensity of information such as that which abounds in the mass media and social networks. Criticism is, therefore, the demonstration of an ability to distinguish what is sometimes difficult to distinguish and select what is worthwhile.

In *The critical thinking toolkit*, Foresman, Fosl, and Watson (2017, p. 8) explain that “critical thinking involves discerning truth and error” and, therefore, “a good critical thinker must learn how to identify claims that are true, or most likely seem true, while at the same time recognizing and avoiding claims that are best judged false”. If the concept of critical thinking reproduces the meaning of the ancient Greek word “critical” as previously mentioned, then, critical thinking has three dimensions: an analytic, an evaluative, and a creative component, i.e. we must be able to analyse thinking in order to evaluate it; and we evaluate it in order to improve it (Elder & Paul, 2016, p. 99). Therefore, in *The thinker’s guide to the art of Socratic questioning*, Elder and Paul define critical thinking as “the systematic monitoring of thought with the end goal of improvement”. “When we think critically, we realize that thinking must not be accepted at face value, but must be analyzed and assessed for its clarity, accuracy, relevance, depth, breadth, and logicalness.” (Elder & Paul, 2016, p. 99).

If critical thinking involves the mental activity of criticise, deliberate, and evaluate and a critical thinking is an evaluation that means identifying positive as well as negative aspects, what works as well as what does not, critical thinking is a cognitive activity associated with using the mind. “Learning to think in critically analytical and evaluative ways means using mental processes such as attention, categorisation, selection, and judgement” (Cottrell, 2005, p. 1).

Critical thinking is a procedure for thinking and criticising that is intended to be habitual, systematic, insofar as it is a correct way of acting that brings benefits, such as increasing understanding of situations and making the best decision to act. It is a systematic way to form and shape one's thinking on any subject and in any circumstance. Critical thinking is the self-regulated process of forming correct and adequate ideas, critical judgments and intentional evaluations to better understand the circumstances surrounding any decision-making and any daily activities, such as choosing a reliable news channel, understanding what is reported and its implications or recognize the veracity or the plausibility of the facts reported and the role of those involved in the news (including the journalist and the relevance and pertinence of the questions the reporter asks the interviewee).

As explained in the next section of this article, the relationship between critical thinking and media and digital literacies must be guided by the critical activity demonstrated in Socrates' philosophical thought, i.e. it must fundamentally focus on: a) the questioning, the ability to ask about the clarity and correctness of all information one receives from the media (e.g. "is this news really true?", "what is the news criterion in this information?" or "is this a fact or an opinion?"), never taking information for granted without passing it on through the sieve of free and accurate critical thinking; b) the conceptualizing process of understanding what was actually stated, the event and the content received; c) the argumentativeness, the discussion about the possibilities of what is reported and happen; d) the meaning, the ability to faithfully reproduce what has been read or watched in the media. New digital media consumers must develop the habit of asking questions to illuminate the missing information (Browne & Keeley, 2018, p. 143). Critical thinking is fundamental to develop these skills and understand the influences and biases behind media messages, considering that "people in the news media sometimes make mistakes" and "accept claims with insufficient evidence or without confirming the credibility of a source", "the media are subject to pressure and sometimes to manipulation from government and other news sources" and "are driven in part by the necessity to make a profit, and this can bring pressure from advertisers, owners, and managers" (Moore & Parker, 2017, p. 113). Keeping these points in mind and questioning the news media is an advantageous dialectical method of critical thinking before digital media, their consumption and influences.

1.1. Critical thinking skills and benefits

With critical thinking, cognitive processing is structured, disciplined, comprehensive, based on intellectual standards, and well-reasoned. As the name allows to deduce, critical thinking is firstly rational and critical, reflective and reasonable, structured and systematic, goal directed and purposeful. Critical thinking is a process of deliberation. As Cottrell (2005, p. 2) points out in *Critical thinking skills: Developing effective analysis and argument*, critical thinking includes a wide range of skills and attitudes such as:

- identifying other people’s positions, arguments, and conclusions,
- evaluating the evidence for alternative points of view,
- weighing up opposing arguments and evidence fairly,
- being able to read between the lines, seeing behind surfaces, and identifying false or unfair assumptions,
- recognising techniques used to make certain positions more appealing than others, such as false news and persuasive information,
- reflecting on issues in a structured way,
- drawing conclusions,
- presenting a point of view in a structured, clear, well-reasoned way.

According to Cottrell (2005, p. 4), by developing critical thinking, the benefits are evident and diverse, namely for the acquisition of media literacy skills, such as:

- improved attention and observation,
- more focused reading,
- improved ability to identify the key points in a text or image rather than becoming distracted by less important material,
- improved ability to respond to the appropriate points in a message,
- knowledge of how to get one own point across more easily,
- skills of analysis that one can choose to apply in a variety of situations.

Critical thinking includes questioning. When applied in the media literacy, critical thinking predisposes to fundamental questions that serve as a filter for what we consume in the media, whether in the news media / mass media or social networks. Questions that mass media consumers and social media users, for example, can and should ask as a way of exercising and demonstrating media literacy, such as:

- What am I listening / reading is news or an opinion?
- If the information is news, what defines it as such?
- What is the newsworthiness criterion?
- What is the information’s public interest?
- Are there underlying interests in the information?
- What the information is telling me?
- How and why are the facts reported?

Questioning is a fundamental characteristic of critical thinking. “When we ask the question ‘why?’ we’re asking for a reason for doing what we are being enjoined to do, or believe what we are being enjoined to believe” (Bowell & Kemp, 2002, p. 1). Asking for a reason is asking for a justification for taking the recommended thinking or action. To ask “why?” is to resist persuasion in the media and to avoid the harmful influences of the information that is placed on social networks and circulate to deceive or manipulate public opinion.

“The news media are to a great extent a reflection of the society at large”, but if we are “willing to get by with superficial, sensationalist, or manipulated news, then we can rest assured that, eventually, that’s all the news we’ll get” (Moore & Parker, 2017, p. 113). Don’t ask “why?” means passively accepting media information as true, it means not having one own filter that select what is a fact from what is not or, at least, what does not seem to be factual or is very unlikely. False news is more appealing than real news because false news contains sensational information and “revolutionary” and subversive contours intentionally introduced to stir up public opinion. Otherwise, false news goes unnoticed or are like regular news, they don’t stand out, as is the case with false news regarding Pope Francis’ support for Donald Trump or Hilary Clinton’s gun supply, according to the headline “Hillary Clinton sold weapons to ISIS”. This kind of news is

disruptive. Therefore, critical thinking is a necessary instrument for media literacy as a capacity within everyone's reach for citizenship and the democratic nature of social life. In this regard, that of the relationship between the democratization of social life and media literacy, Couldry, Livingstone and Markham (2007, p. 105) argue that "in democracies that depend on mediated flows of information, media literacy crucially contributes, therefore, to democracy's effective workings".

By self-asking questions about media content for audience consumption, the public can confront what they are hearing, seeing, or reading and differentiate facts from opinions, truth from lies, news from misinformation. By putting questions, the audience develops reflection and manifests a critical spirit that allows them not to receive content in the media as acquired data, not to take any information or truth as "digested", i.e. "imposed" as "thoughts already thought" or "fast thinking". In doing so, media consumers become critical thinkers, selecting and demanding receivers. The media content is scrutinized and filtered. As critical thinkers, the audiences are collective autonomous thinkers with free and independent thinking, basing their decisions to consume information on solid reasoning. Such active attitude is capable of recognizing stereotypes, prejudices, and ideological assumptions that television and radio programs and newspaper and magazine reports manifest, sometimes without intention. Therefore, critical thinking is fundamental for the acquisition and development of media literacy, as it allows separate facts from opinions, prejudices, stereotypes, and biases in the news media and in the media content in general.

Ideological assumptions, for instance, are implicit arguments that may be simply not recognised as implicit because it represents what is taken for granted in the society or culture (Cottrell, 2005, p. 93). Implicit arguments can be a society's equivalent of a "blind spot" and critical thinking helps to understand and analyse the countless (verbal and non-verbal) messages that circulate both in the physical and digital public spheres through the different media.

Whether in the traditional (physical) public sphere or in the new digital public sphere (e-sphere) thousands of information circulates and are shared; much of it is false, so media literacy skills and critical thinking are more needed to be developed. Even if we consider the public sphere transformed into a "*phygital*" (a fusion of the words "physical" and "digital"), the evolution of the modern day-to-day experience is based and influenced by media technology, which adapts to our collective behavior of media consumption of

information more susceptible and vulnerable to deception, manipulation, and falsehood. Therefore, critical thinking helps to understand and analyse messages “to bring out such ‘taken for granted’, or ideological, aspects so that we are becoming more aware of our hidden assumptions” (Cottrell, 2005, p. 93). Implicit arguments and points of view or ideological assumptions are hidden or camouflaged among the news and under the false cover of certain well-known and credible media. Denotative meanings (explicit messages) mixed with connotative meanings (implicit messages) are enough for the need of critical thinking to clarify the eminent confusion that is intended in social networks. False news and persuasive information, ideological assumptions, implicit arguments and points of view, underlying premises and the connotations of information accessed on the Internet are not always made explicit.

Naturally, audiences are more likely to recognise explicit meanings than implicit meanings. False news may also contain explicit, or denoted meanings, as well as factual news may also contain implicit, or connoted meanings, to persuade audiences to a point of view. Both situations tend to act on the audience’s unconscious, and people are not necessarily aware that they are being used in the news media. Messages that act on the unconscious can be particularly powerful, so it is important to be able to detect implicit messages (Cottrell, 2005, p. 99). With critical thinking, audiences may evaluate whether an information sounds convincing, considering its connotations and hidden messages.

When questioning the purpose of disseminating information on social networks, for example, audiences with critical thinking check the adequacy of the information and ideas conveyed with any reactions and problems raised and to whom these may be of interest. Critical thinking skills applied to media literacy means the ability to understand, critique, problematize, and challenge media information from the standpoint of how this information reproduce a trend, ideology, dominant economic or political power, prejudice or stereotype that is not well known or easy to perceive by the public. Critical media literacy also involves analysing how the media present and transmit representations of class, race, gender, sexuality, and other forms of life (Kellner, 2016, p. 135), oppression and domination or other overbearing and deviant situations or forms of social values and ethical-moral principles. Accordingly, critical media literacy involves “understanding new media and technologies as forms of power that have multiple and evolving social effects and uses”, as well as “understanding new media and their impact on all forms of contemporary life” (Kellner, 2016, p. 136).

To check the adequacy of the information is to judge whether the information the audience receives is accurate, complete, factual, timely, useful, and relevant, which are information quality criteria. If audience reason with false information or a lack of important data, it is impossible to draw a sound conclusion.

As *Bowell and Kemp* ask: why should we become critical thinkers? Because every day we access social networks and receive information from everyone, at any time and from everywhere, including the news media. However, not all information matters; many are neither true, nor useful, and only aim to influence and create negative effects. Therefore, we need critical thinking to separate the wheat from the chaff, select the information that is interesting and factual from that which is “planted” in the social media to influence and condition thinking and people’s ways of acting and behaving. “Every day we are bombarded with messages apparently telling us what to do or not to do, what to believe or not to believe” (*Bowell & Kemp, 2002, p. 1*). In *Critical thinking: A concise guide*, *Bowell and Kemp* exemplify that we constantly receive messages like:

buy this soft drink; eat that breakfast cereal; vote for Mrs Bloggs; practice safe sex; don’t drink and drive; don’t use drugs; boycott goods from a particular country; abortion is murder; meat is murder; aliens have visited the earth; the economy is sound; capitalism is just; genetically modified crops are safe; etc. (*Bowell and Kemp, 2002, p. 1*).

1.2. The truth-value of information

According to *Fisher (2011, p. 203)*, since anyone can create a website or pay to have a book published, then claim to be an expert in a certain field, self-published media (e.g. personal websites, open wikis, personal or group blogs, Internet forum postings, and tweets, etc.) “are largely not acceptable as sources”. The self-publishing and self-editing of any content presents the problem of credibility, as the process does not go through the traditional measurement mechanism or the truth sieve and the demanding criteria and quality requirements.

Having critical thinking is not accepting all the information that is accessed and received on social networks as true and disinterested information. Having critical thinking is, therefore, understanding the mechanisms of public opinion formation, knowing how information is produced and how it circulates in the public sphere, which is now an e-sphere or digital public sphere. Critical thinking is the ability to assess the reliability of

information and the quality of an information channel, whether a means of social communication or a website. In short, it is a sort of media literacy.

To say of a media information that it is true is to say that the facts are as the media information says it is. Although it is not always easy to verify the facts of the information, critical thinking follows common sense and the reasonableness of information. Some news put into circulation on social networks should not affect nor have any success if there was a minimum of media literacy in the audiences of the communication channels and in the users of the social networks. For example, to say that it is true that X is Y (e.g. “snow is white”) is to say that X (snow) is as the social networks’ information says it is, namely Y (white). To say that some information is true (i.e. that X is Y) is equivalent to saying that X is Y, and the media information that expresses “X is Y” cannot be true for one person and false for another.

In *Metaphysics*, Aristotle (2016, 1011b1) distinguishes between the false and the true, stating that: is true “to say of what is - that it is” and is also true “to say of what is not - that it is not”. On the contrary, is false “to say of what is - that it is not” or “to say of what is not - that it is”. For Aristotle, whoever claims that a thing is or is not will say what is true and what is false. This is the difference between what is and what is not. The distinction obeys the basic principles of logic; it meets the principle of the third excluded: a thing is either true or not. Therefore, what is false would be for fiction and what is true for non-fiction. What is false is to deny what exists or to affirm what does not exist; what is true is affirming the existence or denying the non-existence.

The truth-value of an information is the fundamental criteria to separate real news from false news. The truth-value of a true media information such as “X is Y” is truth, while the truth-value of a false media information such as “X is not Y” or “X is Z” is false. The truth-value is one of the fundamental criteria of journalism, ensuring that what is reported has quality because it has been previously verified as true, factual, and objective. Credulous of this premise, the audiences of the informative content produced by journalists believe with their eyes closed in everything that journalists and media companies report, dispensing with applying critical thinking, despite the generalized follow-up of the truth-value by journalists.

Critical thinking is a reasoning skill that serves, above all, to understand what is received by the public and what has been reported in the various media. Understanding already

presupposes and includes a selective reflection of stories, eliminating the nonsense and absurdities that are the ones that most call attention on the Internet.

Concrete and most famous examples are the 2016's Brexit vote and the U.S. presidential election, both events much discussed and based on falsehoods on social media and reported in the news media around the world.

In the case of the Pope, we would not have to wait for the fact-check to quickly conclude (or doubt and ask) about the plausibility and veracity of what is narrated. A common critical thinking would have shown that Popes are politically independent. Pope Francis would never comment on an act of electoral politics. However, many people considered this story to be acceptable and true; it was widespread on social media and caused a lot of damage to the truth / facts. It was disruptive. Any information involving a Pope always has a lot of public interest. The Pope is a "media product" that "sells" quite as news, regardless of whether it is a fact and true. When faced with the headline that Pope Francis had endorsed Donald Trump, who neither doubted nor asked and piously believed in a very unlikely event? Many people have done so, despite the reasonableness of the eventual facts indicating that no Pope would and could not do it. The same is true in the case that Hillary Clinton sold weapons to ISIS, despite the sporadic appearance of revelations and scandals that no one would suspect, such as the Watergate affair.

2. Media literacy and digital literacy

Digital tools are now part of our daily life. We use them for the most diverse and common tasks. These tools imposed themselves on our modern life without we realize or be prepared, requiring from us a corresponding and indispensable digital literacy for their use. As some of these tools are social, the requirement to know them and know how to use them is even greater to have an active role in society, as these tools bring with them the risk of social exclusion in case of inability to use them. To overcome these difficulties, digital literacy is required.

Digital literacy is the ability to use competently digital media, depending on what these media are, but also to understand and evaluate their content. Whether digital literacy or media literacy, literacy is fundamental in our current digital and technological culture. The rapid growth of the new technologies imposes new needs and new learning and qualifications to use these technologies competently and to the maximum benefit. Such

rapid growth of the new technologies has raised the issue of digital literacy, the need to distinguish between those who are able to manage them and those who are not able, as well as between the digital natives and the digital immigrants (Cantoni & Tardini, 2008, p. 27). In the current digital era, the world has been radically transformed by the advent of ubiquitous digital networks, linking the digital media and young people (Livingstone & Sefton-Green, 2016, p. 5).

Generally, young people find it easier to acquire skills in the use of new digital media and, therefore, to overcome the demands in terms of literacy or critical viewing that these media place on their users. As Buckingham (2000, p. 211) explains, “critical viewing is seen as a kind of cognitive character armour, that protects the viewer against the dangerous emotional influence of the media”. Young people are digital natives and they “develop a set of critical competencies – a form of ‘media literacy’ – which they are able to apply to their readings even of relatively unfamiliar texts or genres” (Buckingham, 2000, p. 217).

Therefore, digital literacy is more and more a requirement in the knowledge and information society, at least in terms of digital fruition, state Cantoni and Tardini (2008, p. 28). In our current technological epoch, it is crucial one being able to access digital information. Access these digital information “is something that cannot be anymore referred to ‘digital scribes,’ but is becoming more and more a personal requirement” (Cantoni & Tardini, 2008, p. 28). It is undeniable the importance of digital literacy in contemporary societies, since knowing how to access, interpret or publish information online guarantees inclusion in the society, while the inability to deal with this online information is increasingly excluding from social life (Cantoni & Tardini, 2008, p. 42).

For Flew and McElhinney (2006, p. 288), the growth of media and communications in shaping social and economic global life “largely corresponds with the rise of literacy”. The rapid growth of the new media technologies must be accompanied by a similar rapid growth of digital and media literacies. Digital literacy presupposes levels, i.e. stages of skills or user’s competences for digital devices and instruments:

- 1) a basic level of access to digital tools (e.g. access to the World Wide Web),
- 2) an intermediate level to understand digital content (e.g. identifying the content and who produces it, and understanding the reasons why the content is produced and how they are or should be used,

3) a more complex level regarding the use and mastery of digital tools.

The most frequent level is the intermediate level, which occurs when one does not have the capacity, for example, to identify false news even if the event reported is surprising, absurd, or unlikely.

Etymologically, the concept of literacy means the ability to read and write. The concept of digital literacy is much more than this ability to understand the *litterae* (“letter”); it is a cognitive activity capable of recognizing and understanding more complex issues within the digital system where it operates with a particular digital instrument and relates to other users of the same system with whom they share the use of that instrument.

There is not just one literacy or one type of literacy, there are many literacies. The concept of literacy is open and broad; it should include all forms of media with their objectives and scope (Potter & McDougall, 2017, p. 17). “From digital literacy to media literacy, multimodal literacy and more, the field is crowded with terms and definitions which are interrelated and overlapping, though sometimes contradictory and even oppositional to one another” (Potter & McDougall, 2017, p. 29).

Mass media have always shaped social behaviors, actions, and practices. They reach a wide audience and in an immediate and simultaneous way. Regardless of whether they influence for the good, the mass media certainly have enriched popular culture. Without the Gutenberg’s invention of printing, information and literacy for the masses would not be possible since this technological invention caused a global literacy revolution and a mass reproduction of media content that led to the need for literacy skills. As Baran (2014, p. xv) points out, media literacy is the fulfilment of the following goals:

- a) increasing audience’ knowledge and understanding of the mass communication process and the mass media industries,
- b) increasing audience’ awareness of how they interact with those industries and their content to create meaning,
- c) helping audience to become more skilled and knowledgeable consumers of media content.

But a major barrier to media and citizen involvement is the lack of awareness by many of us about the nature, content, and the effects of new media, as Warnick (2002, p. 10) argues. The analysis of media messages supports several forms of literacy vital to an

informed and educated public (Warnick, 2002, p. 13). If media literacy is the ability to ascertain the effects of media messages on audiences, the effects of television violence on children or exposure to political ads on voter behavior are relevant.

In “Culture without literacy”, McLuhan (1953) predicts that literacy and media (e.g. press and book) are undergoing revolutionary changes that affect all Western culture. For McLuhan, competition among the media for public attention is increasing and relations between forms of communication involve changing proportions in all human, social, political, and economic institutions. As early as 1953, when he published this text, McLuhan considered that culture, which in the past was a complete synonym for high levels of literacy, must now be measured more against the total media matrix. The availability of many forms of media expands its reach at least to those who seek all forms of information available to them.

The current plethora of messages, media, social networks, and their popularized uses forces people to permanently acquire media and digital literacies. The growing phenomenon of false news requires more attention and critical thinking, as well as the emerging ability to discern the credibility, rigor and verisimilitude of the media and messages that circulate in the public sphere. In *Digital literacy across the curriculum*, Hague and Payton (2010, p. 19) summarize the eight components of digital literacy:

- 1) creativity,
- 2) critical thinking and evaluation,
- 3) cultural and social understanding,
- 4) collaboration,
- 5) find and select information,
- 6) effective communication,
- 7) e-safety,
- 8) functional skills.

This list shows the vast scope of digital literacy, as well as the underlying media literacy. Media literacy is a perspective that we actively use when exposing ourselves to the media to interpret the meaning of messages. Potter (2001, p. 63) considers that “we build our

perspectives from knowledge structures” and, to build our knowledge structures, “we need tools, raw material, and willingness”. According to Potter (2001, p. 63), “the tools are our skills” and “the raw material is information from the media and from the real world”. The active use of media means that we are aware of the messages and are consciously interacting with them. For Potter (2001, p. 63), two of the most important characteristics of media literacy are:

- a) media literacy is a multidimensional concept with many interesting facets (cognitive, emotional, aesthetic, and moral),
- b) media literacy is a continuum, not a category.

Recently, continuous social transformations are more intense, as technological devices and means of communication and information, combined with their uses, procedures, behaviors and attitudes, are also in the process of evolution. To keep up with these changes, people must requalify their practical and social skills, acquiring new forms of literacy.

As societies change, the concept of literacy also changes. As mentioned before, the emergence of new media in the last two decades has contributed to the change and evolution of the concept of literacy. There is a direct relationship between social changes and the new formulations and meanings of the concept of literacy. If this concept changes, what literacy means in practice also changes. Daily uses are now more technological and digital; therefore, the skills for these uses are effective applications in collective life.

If societies are increasingly global and technological, the concept of literacy is adapted to the digital evolution of societies and to the diversity of new technological devices of communication and information. As a result, the traditional definition of literacy is limited and obsolete; it should not only mean the ability to read and understand the meanings of words, but it applies to a broader capacity. In conclusion, it is more appropriate to recognize different types of literacy, such as digital literacy.

2.1. The immediacy of digital media and media literacy

The advent of digital media technology has resulted in more skills and a digital lifestyle. For example, feedback from media audiences is now more immediate. According to Silverblatt *et al.* (2014, p. 23), before the era of digital media technology, media

broadcasters had no way of knowing immediately whether audiences were really involved in the communication process. If the interactive feature of digital media gives audience members the opportunity to respond immediately to media programming, it is because both audiences and the media have evolved, as both are more qualified and moved to a digital dimension. “Indeed, programs like *American Idol* incorporate audience response into the presentation, as viewers vote for their favourite performers” (Silverblatt *et al.*, 2014, p. 23). One of the major changes in the evolution of digital media production is that, as Silverblatt *et al.* (2014, p. 25) emphasize, “one person can shoot and edit video, produce animation, and incorporate graphics into the production”. Therefore, two main theses to underline are:

- 1) the immediacy is one of the major features of the digital media,
- 2) the digital media technology implies digital literacy.

If a new digital media technology arises, new ways of accessing the media also emerge, as well as of operating it conveniently, in the most practical, efficient, and simple ways. Digital technology and digital literacy are interrelated. Thanks to both, anyone has the means and the skills either to produce, edit, and distribute their content on the web or receive, understand and act/proceed in accordance with the content/information one finds on the web.

“Digital media is the ultimate hybrid: established media (i.e., print, photography, graphics, audio, and video) are combined with computer technology to create new, digitized applications of these media” (Silverblatt *et al.*, 2014, p. 404). In the digital media technology, users are more active than in the previous traditional media communications. “Digital networking favours symmetrical communication. Today, participants in communication do not just consume information passively: they generate it actively” (Han, 2017, p. 3). The audience has unprecedented control in this new dimension. “Digital media technology gives you unprecedented control over your personal media usage as well as access to a range of perspectives on issues” (Silverblatt *et al.*, 2014, p. 499).

Today, we live more and more in a time of sudden transition from mechanical to electric and digital technology. In *Understanding media: The extensions of man*, McLuhan (1994, p. 17) argues that “the electric technology is within the gates, and we are numb, deaf, blind, and mute about its encounter with the Gutenberg technology”. According to McLuhan (1994, p. 343), since “our new electric technology is not an extension of our

bodies but of our central nervous systems, we now see all technology, including language, as a means of processing experience, a means of storing and speeding information”. In such a situation, “all technology can plausibly be regarded as weapons” (McLuhan, 1994, p. 344).

The immediacy of both the media and media literacy is so impressive that our daily social uses and customs changed. For this reason, Han (2017, p. 10) accurately says that “the new mass is the digital swarm”, a digital swarm that comprises isolated individuals. “Electronic media such as radio assemble human beings. In contrast, digital media isolate them” (Han, 2017, p. 11). He argues that “the digital medium is a medium of presence”, i.e. “its temporality is the immediate present” (Han, 2017, p. 15). However, digital communication is distinguished by the fact that information is produced, transmitted, and received without intermediaries, explains Han. “More and more, interfaces are being eliminated. Mediation and representation are viewed as a lack of transparency and inefficiency - as temporal and informational congestion” (Han, 2017, p. 15).

In the contemporary digital dimension, the audience exercises control over media content, dictating choices in programming (Silverblatt *et al.*, 2014, p. 53). The same control is notorious in the photography. Anyone can take photographs with excellent quality and edit the image as one wish due to the recent digital revolution of photography from analogue to digital. A revolution based on changes: on the one hand, in the practice of capturing images in an easy and attractive way through new digital devices and new communication technologies; on the other hand, the consequent profusion and the massiveness of images, showing that everyone dominates the technique, i.e. has digital literacy. “The digital medium is in the course of abolishing all priestly classes” (Han, 2017, p. 16). Today, one may easily take photographs using a standard mobile phone. The use of this popular device confronts us with collective digital and technological literacy, insofar as the photographic images can thus be captured by anyone, everywhere and at any moment.

One of the literacy effects of the new media uses is that “the digital medium is bringing about an iconic reversal that is making images seem more alive, more beautiful, and better than reality itself” (Han, 2017, p. 27). For Han, “the digital medium creates more distance to the real than analog media”, i.e. “less analogy holds between the digital and the real” (Han, 2017, p. 29). If the digital medium is “defactifying the world”, as Han (2017, p. 29) claims, literacy is needed to let people perceive this negative effect. According to Han

(2017, p. ix), new digital media are reprogramming us, yet we fail to grasp the radical paradigm shift that is underway. “We are hobbling along after the very medium that, below our threshold of conscious decision, is definitively changing the ways that we act, perceive, feel, think, and live together”, states Han (2017, p. ix). This is a sort of technology blindness, an illiteracy, because “we are enraptured by the digital medium”, says Han, “yet unable to gauge the consequences of our frenzy fully”. This is a turn from McLuhan’s “global village” to Han’s “digital swarm”, where “the crisis we are now experiencing follows from our blindness and stupefaction” (Han, 2017, p. ix). In this regard, McLuhan and Zingrone (1997, p. 86) also use the metaphor of technological blindness, when they refer to the “implosion of electric technology is transmogrifying literate, fragmented man into a complex and depth-structured human being” (McLuhan & Zingrone, 1997, p. 250).

However, for Silverblatt *et al.* (2014, p. 404), “digital media communications emulate humans’ patterns of thought and expression, enhancing the role of the participant (initiator and receiver) in the communication process”. Digital media are interactive and dynamic. By using digital media, we both retrieve and impart information. Silverblatt *et al.* (2014, p. 403) recognize that “digital media communications has had a profound effect on the way that we think, process information, and interact with our globally connected world”. “Like no other mass medium, digital communications approach the dynamics of interpersonal communications” (Silverblatt *et al.*, 2014, p. 405).

The dependence of people on digital media is increasing and it has accompanied the use, also gradually frequent, of technological digital devices and the related literacy. This dependence is a kind of blind confidence in digital technologies, but it also fosters digital media illiteracy. However, “applying critical thinking skills to digital media presentations enables individuals to make independent judgments about the information they receive and communicate” through this medium (Silverblatt *et al.*, 2014, p. 406). As Browne and Keeley (2018, p. 53) argue, “the end-product of critical thinking is someone who is open to multiple points of view, assesses those perspectives with reasons and evidence, and then uses that assessment to make decisions about what to believe and what actions to take”. Therefore, as a tool for the media and digital literacies, critical thinking is advantageous for digital media consumers.

2.2. Literacy in the multimedia and global age

In the 1960s, McLuhan warned of the tendency of mass societies to become a “global village”, due to the development and impact of new technological means of information and communication. Among McLuhan’s innumerable critical remarks, one seems to be polished and perfectly adjusted to our collective life and dependence on the media: “one thing about which fish know exactly nothing is water, since they have no anti-environment which would enable them to perceive the element they live in” (McLuhan & Fiore, 1989, p. 175). This state of unconsciousness seems to be the more (in)visible effect of the media technology.

McLuhan also criticizes, or at least is concerned with, the dominance of technology and its effects on the Prologue of *The Gutenberg galaxy*, where he states: “in the electronic age which succeeds the typographic and mechanical era of the past five hundred years, we encounter new shapes and structures of human interdependence” (McLuhan, 1962, p. 3). Electronic media transform our cultural ecosystem and make it tribal again. In *The medium is the message*, McLuhan (1967, p. 8) also warns that “the medium, or process, of our time - electric technology - is reshaping and restructuring patterns of social interdependence and every aspect of our personal life”. For McLuhan, the medium “is forcing us to reconsider and re-evaluate practically every thought, every action, and every institution formerly taken for granted”, insofar as everything is changing dramatically. “Societies have always been shaped more by the nature of the media by which men communicate than by the content of the communication” (McLuhan, 1967, p. 8). The media are technologies absorbed by children and young people “in a completely unconscious manner, by osmosis, so to speak”. The words and their meanings “predispose children to think and act automatically in certain ways”.

Today, six decades after McLuhan’s concerns, contemporary digital societies demonstrate the technological dominance and human dependence. The effects of the media are gradually complex, as technology dominates the daily uses of the media and the social practices of communication and information and, therefore, requires a constant qualification of literacy, which is as diverse as the media themselves. After McLuhan’s critical and visionary perspective, the current electronic age shows our dependence on a new digital culture of technical prostheses, which diminishes critical thinking and demands more and more media and digital literacies. In this regard, it is pertinent to ask:

1) Mass societies and digital cultures resulting from the profound social transformations of globalization produce more informed, enlightened, literate, demanding, committed and critical citizens?

2) In the golden age of technology, electronics, and digital media, do we communicate more and understand better, i.e. do we have more literacy?

Whereas a new technique always brings a new and different way of thinking and acting, the justification to approach digital media and focus on literacy is due to the gradual transformations of culture and the new technologies that lead us to think, act and communicate in innovative ways. However, there are not only new ways of thinking, seeing, and acting; there are also “ways of world making”, using the words of Goodman (1988). In the *poietic* sense of producing (from the verb *poien* in Greek, to create something out of nothing), to create an image of the world is to produce a “world”. The human being does not live only from instinct (human nature), but also from the rational faculty (human thinking) and the operative faculty (human voluntary technical action) that modify the circumstances. Technique is the modification that human beings impose on their natural circumstances to produce their needs (more than satisfaction), which are superfluous, according to Ortega y Gasset (2009, p. 37). Voluntary technical action is an effort to save effort (Ortega y Gasset, 2009, p. 43). If the technique is an effort that saves several and greater efforts (i.e. it brings rest and supposed well-being), a problem arises: what we do with the saved effort? What will the human being do to occupy his life?

For Ortega y Gasset (2009, p. 33), the technique is the opposite of the adaptation of the human to the environment, given that it is the adaptation of the environment to the human. All human beings are technical beings. The technique is the creation, production, *poiesis*; the technique is somewhat *poietic*, as stated by Heidegger (1977, p. 13) in *The question concerning technology*.

With the Internet, digital technologies have developed and emerged the “digital natives” and the “digital immigrants”. “Digital immigrants” are the people who, according to Lyon in *Liquid surveillance*, had “learn his way in a new culture, not a digital native, for whom Facebook is a taken-for-granted and indispensable way of connecting with others” (Bauman & Lyon, 2013, p. 42). Culture is the learned behavior of members of a given social group, states Baran (2014, p. 8). Culture is the uses, customs, and lifestyles socially acquired by the members of a society, including their shared ways of thinking, feeling,

and acting. Culture is socially constructed shared meaning. “The creation and maintenance of a more or less common culture occurs through communication, including mass communication”, insofar as “the meaning is being shared and culture is being constructed and maintained” (Baran, 2014, p. 8).

In a society of information and new digital media, new skills are assumed to face the large flows of information. So, as Hoechsmann and Poyntz (2012, p. 1) explain, media literacy is “a set of competencies that enable us to interpret media texts and institutions, to make media of our own, and to recognize and engage with the social and political influence of media in everyday life”. Media literacy implies the use and the influences of media. It is a sort of technology education. “Media literacy suggests a capacity or competence to do something with media, whether to make sense of it, to produce it, or to understand its role in our societies” (Hoechsmann & Poyntz, 2012, p. 1). Media literacy enables one to engage with a variety of media content from a magazine advertisement to a televised rock video, a radio talk show to a video game, a cell phone photograph to a website.

Therefore, the term media literacy is used generally in reference to the knowledge, competencies, and social practices involved in using, analysing, evaluating, and creating mass media, popular culture, and digital media (Hobbs, 2016, p. 9). Among the elements of media literacy, it is notable the understanding of media content that provides insight into our culture. We know a culture and its people, attitudes, values, concerns, and myths through communication, says Baran (2014, p. 22). “For modern cultures like ours, media messages increasingly dominate that communication, shaping our understanding of and insight into our culture” (Baran, 2014, p. 22). Indeed, the impact of new information and communication technologies is comparable to a digital or multimedia revolution, a new general reconfiguration of culture, uses and customs. Culture is transformed by technique. Culture is now global, technological, and increasingly digital, as is literacy now. Therefore, it becomes relevant to understand the renewed demands of literacy and the technological effects of the media on audiences.

Conclusion

Today, communication devices are more and more technological. The forms of culture are changing. Technology has revolutionized the way we communicate. We are now connected in a real-time network across the globe. A first conclusion of this article is that

literacy must keep pace with the development of new media in the current digital cultures and, as these media are now digital, literacy must be multiform, both digital and media.

There are multiple changes in the digital media, including social uses and practices, lifestyles, skills and even the concept of literacy. The communication paradigm is now based on the interaction, connection, and immediacy. It is in this sense that Baudrillard (2005, p. 31) considers immersion, immanence, and immediacy as the characteristics of the virtual. The interactive world abolishes the line of demarcation between the subject and the object (Baudrillard, 2005, p. 78).

Technological and digital media is a double-edged sword: they facilitate and improve our ways of communication and impose ways of use, skills, literacy, i.e. they depend on how we use them. Mobile phones, for example, have been fashionable for some years now and continue to be developed and demand literacy for their uses. Each new medium imposes new ways of using it, i.e. new competences. Therefore, the study of digital literacy focuses on the ability to critically decode information from media and on how we use digital media. In this sense, the main conclusion of this article is the development of critical thinking as a natural tool for literacy and for the use of new digital media, insofar as, to assess the quality of the information that is consumed and the communication channels that are used on the internet, it is necessary to criticize, to “separate the wheat from the chaff”. Thus, it is argued that media literacy, which is inexorably digital, is a critical thinking skill as in Socratic philosophy.

Several aspects must be taken into account in understanding both the media and their uses in order to approach the problem of media literacy and digital literacy, namely: the peculiar discursive style of each medium, which shapes its content; the ability to think critically and make independent choices and interpretation of content received from the media; the understanding of the emerging networked structures in which we operate in society and its impact on content, attention, perception and interpretation/understanding (Silverblatt *et al.*, 2014, p. 407). The study of media literacy and digital literacy gives an awareness of the impact of digital media, and awareness of digital content as a message that provides insight into our contemporary culture.

This article also concludes that McLuhan’s warnings and predictions make more sense today than they did at the time (about 60 years ago) in which they were presented. Social and human changes are caused by the evolution of the communication techniques and

devices. Each medium has its own characteristics and effects (i.e. its own literacy requirements). We live in a “retribalized” world-society under the influence of the media. There are many media that impose a digital dimension on social relationships and daily tasks and activities. Each new media brings new valences, but it must also encourage new ways of literacy, attention and critical thinking about its use and its effects.

To overcome the influence and excess of digital technology and new media in the process of complete and correct understanding of the information received and, therefore, of the world around us, a close relationship between the consumption of information and critical thinking is defended. This is a form of proactive media literacy, applied with autonomy, independence, and based on a critical attitude of questioning and filtering information.

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