

# CRITICAL THINKING - A SIGNIFICANT FACTOR FOR IDENTIFYING AND DEALING WITH STUDENT MISINFORMA- TION

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# ABSTRACT

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Information technology advances have changed how users search for and use information. Technology development creates opportunities and threats to how we perceive information, politics, and relationships. The media's influence on a person's development is of great importance. Given that children and young people are in contact with the media from an early age, the need for them to be media literate is clear. The younger generations must become familiar with media literacy from an early age because the media are part of our everyday reality. It is necessary for smooth functioning in all spheres of society. Media literacy should be represented in all levels of formal education, given special attention, and offered systemic solutions to create well-informed and media-literate citizens. It is important because it contributes to developing and applying critical thinking skills, understanding how media messages influence society and shape our culture, recognizing misinformation, and preserving citizens' rights. Through this study, we will try to get a clear picture of what extent is the development and application of media literacy among the youngest students, which methods should be taken to raise awareness, with which we will strive to influence the creation of media literate persons who further in life they will be able to recognize fake news or disinformation independently and will successfully deal with them.

**Keywords:** information, media, media literacy, education

# 1) INTRODUCTION

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Considering that in our everyday life, we spend a huge part of our time using various media (television, radio, newspapers, magazines, Internet), and when we add to that the advertisements that constantly greet us even on the street on billboards and light advertising panels, we can conclude that we are constantly exposed to a large amount of information, messages, and content. Our environment bombards us with a variety of raw as well as processing information and content that affects our consciousness.

Today, the media is an essential part of a young person's everyday life. Without a doubt, many young people spend most of their day in front of the TV or front of their computer, much more than with their family or at school. Many experts claim that in terms of education, the media has taken the place of the school and the family in modern society. Radio, television, computers, and the Internet are our dominant cultural tools for searching, selecting, collecting, storing, and transmitting knowledge. Increasing knowledge through the use of mass media and communications has both its advantages and disadvantages. While adopting their good points, we should try to avoid the negative ones. That is why we need to develop media literacy, especially among children, a population born and raised with new information and communication technologies present both at home and school. The new reality imposed by the accelerated development of new media and social networks encouraged the professional and academic public to devote more attention to developing the necessary knowledge and skills that they should modern man possesses to safely and responsibly engage and act in the networked digital world, as well as to remain resistant to media manipulation, misinformation and other harmful phenomena caused by the media. Media literacy also places an important emphasis on the need for education that will improve our user experience with the media and on increasing the positive opportunities in

communication that they offer, all with the aim of our better involvement in society and in the decision-making processes that are of public interest.

The Internet is a natural environment for the new generation. Children today don't learn how to use a computer. They use a computer when they learn. Through the search engine, one can find an answer to any question. In other words, the Internet has penetrated all areas of human life. In the future, technology will play an even greater role in people's lives. However, the school remains the main institution in the direction of the educational system of young people. The basis of media literacy is the ability to access, understand, analyze, and critically evaluate different media and media content and create communication content in different contexts. It is necessary for smooth functioning in all spheres of society, especially in the digital world and the "new reality" of social media. Those in the know say that media literacy should be represented in all levels of formal education, special attention should be given, and systemic solutions should be offered to create well-informed and media-literate citizens. It is important because it contributes to developing and applying critical thinking skills, understanding how media messages influence society and shape our culture, recognizing misinformation, and preserving citizens' rights. Through this paper, we will try to highlight the importance of media literacy among the youngest population, more precisely among students from the beginning grades.

# 2) LITERATURE REVIEW

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The emergence of the Internet in the 90s of the 20th century and its dynamic development in the first two decades of the 21st century drastically changed the structure of the media system. Com-

munication gradually spread to the Internet as an additional part of public communication. As a result of the increased use of online media and the development of communication platforms, phenomena or side effects such as fake news, propaganda, and disinformation have increased. media literacy refers to all types of media, including television and film, radio and recorded music, print media, the Internet, and other new digital communication technologies.

The rapid advancement in digital technologies and the concomitant increase in internet use have given rise to reflection and research on the importance of preparing students to access, use, understand, and critically evaluate all forms of media. The expansion of the time spent on the Internet by students has increased the risks of problematic Internet use among children.

Using the Internet, students publish various information content and encourage mutual communication and interaction. Textual content, video materials, and images are most often used. After the publication of all this informative content through the global social media network, they become available to the general public. That is, the contents can be recommended from one to another, forwarded, and comments can be left. Millions of people can be present on social media at one moment. That's why social media began to be used massively in propaganda, in advertising because they influence public opinion.

Students are increasingly at risk of being exposed to various forms of misinformation, propaganda, radical and violent messages, cyberbullying, and hate speech. The spread of disinformation and "fake news" represent acute challenges for the educational systems of the member states. Students (and indeed all citizens) need to develop the appropriate knowledge and develop skills to navigate these rapidly changing environments. Research shows that media literacy education can positively affect students' knowledge, skills, and attitudes in analyzing and critically understanding media and misinformation.

Over time, more and more attention is paid to developing children's communication skills, that is, developing knowledge and skills needed for the safe use of the media, but also for a critical understanding of media content and the way the media themselves function. Today, special attention is paid to the Internet (Internet literacy), to the promotion of the safe use of the Internet by suppressing illegal, harmful content and fake news.

Media programs the habits of young people in terms of their use and way of viewing the world, influencing expectations regarding interpersonal relationships, personal attractiveness, success, fame, health, problems, and their solutions. All those who have a low level of media literacy know enough to receive the media message but not enough to be able to protect themselves from the imperceptible but constant influence in the formation of attitudes in life. When the media, by gradual influence, determines the meaning in people's lives, it means that the behavior, attitudes, and emotions of those people will be in line with such determination. A higher level of media literacy will allow young people to defend themselves from media benchmarks, erase the codes that the media tries to embed in their consciousness, and replace media programming with their own ideas.

Media literacy is the ability to think critically and recognize and appreciate all media content – the ability to "read" media messages and their meaning. Becoming media literate is not about memorizing facts or statistics about the media but about learning to ask the right questions about what we see, read or hear.

In the flood of all kinds of media, traditional and social, and all kinds of content – true and false, twisted, manipulative, tendentious, biased – the messages are always not clear and understandable. That is why it is important to recognize the role and importance of media literacy.

The process of learning media literacy includes not only reading and perceiving but also working, experiencing, experimenting and understanding. Here the student creates, produces, and under

stands the information through his personal experience, interpretation, imagination, and work. Media literacy gradually began to take shape as an educational concept in the 70s of the last century, and UNESCO's "Declaration on Media Education" from 1982 traced the development path of this discipline, thus opening up the possibility of its integration into the educational system. process. Media literacy was further defined and conceptualized in 1992 as "the ability to access, analyze, evaluate and communicate information in all its forms" (Aufderheide, 1992), and a media literate person is "anyone who can decode, analyze, evaluate and produce both printed and electronic media."

Media literacy work with children is a major challenge of immense importance. Working with children is both necessary – due to their high exposure to media content, they cannot understand fully – and challenging for at least two reasons.

First of all, in terms of technology, inversion of traditional roles is common, and when using certain devices (gadgets), children often know much more than their parents and teachers. Second, the approach should be tailored to each age group. Being media literate in the 21st century means being aware of the impact of the media on the individual and society, having an understanding of the process of mass communication, the ability to analyze and discuss media content and its context, developing strategies for critical analysis of the media, independence from the influence of the media and an open mind to accept and experiment with the new teaching and learning tools offered by the information age.

## 3) RESEARCH METHODOLOGY

As previously mentioned, media literacy should be represented in all levels of formal education, it should be given special attention, and systemic solutions should be offered to create well-informed and media-literate citizens. It is important because it contributes to developing and applying critical thinking skills, understanding how media messages influence society and shape our culture, recognizing misinformation, and preserving citizens' rights. Through this study, we will try to get a clear picture of what extent is the development and application of media literacy among the youngest students, which methods should be taken to raise awareness, with which we will strive to influence the creation of media literate persons who further in life they will be able to recognize fake news or disinformation independently and will successfully deal with them.

Content analysis, in combination with qualitative methodology, will be used as the method of this scientific paper. Using content analysis, we will perceive and analyze to what extent the development and application of media literacy among the youngest students, which methods should be taken to raise awareness, with which we will strive to influence the creation of media literate individuals who later in life they will be able to independently recognize fake news or misinformation and will successfully deal with it. Data sources will be from interviews, field research notes, or conversations.

The methodological approach in research is quite important in terms of focus. For the topic to be explained more reliably, above all, a combined research method was used. First, data from literature from public relations and social media were sublimated. Then the qualitative method was also used, i.e., delivering questionnaires to students from the smallest classes. Oral surveys or conver-

sations were organized for the students who had not yet mastered the initial reading and writing. Subsequently, the analysis of the questionnaires followed, from which relevant data were obtained for this scientific paper.

## 4) FINDINGS / RESULTS

The research for this paper was conducted on two groups of respondents. The first group of students from the first and second grades, and the others from the third, fourth and fifth grades. There were 110 students from 7 different elementary schools. In both groups, parliamentary polls or questionnaires were used in the same way as with the first group, who answered the questions through a direct conversation with the teacher (annex 1), and the second group of students answered the questionnaires (annex 2) independently and anonymously. They received the questionnaires in printed form, and each student answered them according to his own opinion. They were informed that they were anonymous. The research was based on the data obtained from the two questionnaires.

To assess media literacy among younger students (the first group), students answered questions adapted to their age through direct communication. To the question "Do you use the Internet?" almost all students answered in the affirmative. This was not unexpected because we have witnessed that no child does not use a mobile phone to watch certain content (cartoons, children's songs, etc.). Through the conversation with these students, we managed to find out other facts, such as that they know a greater number of sites that they turn on and search on their own, and their parents allow them to spend a longer period of time on the Internet. The question, "Do your parents check

you while you are online?" may be one of the important facts that we have come to, which is that the parents of a large number of students (about 76% of the respondents) do not check what they are doing. With these facts presented by the students, we can freely say that parents don't have control and insight into what their children see on the Internet or any other media. This situation can be cited as the parents' insufficient free time and commitment to other activities.

The second group of students answered a questionnaire (annex 2) adapted to their age. Through the questions "How much time do you spend on social networks?", "How many different social networks do you know?", "How many different social networks and media do you use?" we learn that this category of students also spends most of their free time on the internet, using multiple types of social media. This means that the internet and social networks are their everyday life, where they acquire different types of information. "Do you share information on social networks without reading it carefully?" more than 90% of students answered in the affirmative. Based on the answers to some of the questions in the questionnaire, it could be seen that as a reason for sharing certain information without reading it carefully, they would mention the following:

- ▶ if the information was shared by their friend (trusting the friend, they will not check the accuracy of the information);
- ▶ if a certain title of the information caught their attention, i.e., they think it is interesting (assuming that it has interesting content), they would share it without checking its content;
- ▶ if a friend asks you to share some information or to like it (vote for a certain prize game, competition, etc.), you would also do so without checking the reliability of the information.

To the question, "Do you know how you can check the accuracy of a given information?" even 98% of respondents answered that they were unfamiliar with the procedure for checking the veracity of a

given information. The next question was, "Do you know what the shared information might be?" to which a large part of the respondents answered partially. It's all because of insufficient information about the same. We would put special emphasis on the questions about information and misinformation, their meaning, impact, and consequences of the same, where more than 90% of the respondents answered that they have almost no information, that is, they are not at all familiar with it.

Based on the conducted questionnaires and the obtained results, we can come to the conclusion that the students in the initial grades have very little or no knowledge of media literacy and the negative consequences that may arise and with which they would encounter.

We need to develop skills that will help us recognize values and ideas in media content, in the news, in entertainment production, and on the Internet, especially when they are hidden and subtly conveyed. That way, we can make correct and reasoned decisions about which messages we will accept and which we will reject. Media literacy teaches us to be able to ask appropriate questions and support our points of view with examples. Tracking the key points of media literacy allows us to know what was published and when, why it was published, and most importantly, what is our opinion about that article, video, etc.

## **5) DISCUSSIONS AND CONCLUSIONS**

The modern education system inevitably includes media literacy at all levels – from preschool to higher education. It is a concept that is systematically and continuously upgraded by the development of new media and forms of expression. From the aspect of the involvement of media literacy in

the educational system in Macedonia, which faces numerous challenges and reform processes, a clear conclusion is reached that this sphere is underrepresented. The need for immediate improvement in this area in primary education is a necessity detected by teachers but also by students. Based on the findings obtained from the research, the need to introduce media literacy from the youngest age of the students is seen.

The general conclusion from the discussions with teachers in primary education is that there is a lack of continuous training for media education, even though the professional upgrading of the teaching staff is foreseen by the Law on Primary Education. This is because technology and new media are living matters, and teachers must keep up with the opportunities they offer. Similar to other countries, our educators also feel the gap in the knowledge and skills possessed by students and teachers (especially for computer and digital literacy), acquired mostly outside formal education. It requires new, modern learning methods that keep up with modern online living.

The need to study media literacy stems from the fact that the media are an indispensable part of the life of a modern person and, as such, undoubtedly influence the formation of opinions, attitudes, and behaviors of the audience. Therefore, it is necessary to accept that today, in the socialization, upbringing, and education of young people, other factors, such as the media, and not only parents and school, participate. That is why the goal of media literacy is to increase the understanding of the role and function of the media in society, but also to develop the basic skills for research and expression of citizens in a democratic society.

Media literacy and education imply the ability to receive, review, question, and check the information and to select and fit the mediated information with the other available information. It also implies an understanding of how the media create the messages and content they send to the public and how the audience receives and elaborates on them.

We live in a time when our media coverage is changing rapidly. We are surrounded by different media forms and platforms, from printed paper to digital content. This includes electronic media, print media as well as online content. From the research itself, we concluded that students mostly use online content. In doing so, they become creators and distributors of certain information. By simply clicking on "I like" or simply by sharing a video, post, link, photo, etc., they become direct participants in the process of spreading the news and transmitting the information. Our friends, relatives, and family see this post and trust us, but sometimes mistakenly consider the information reliable and trustworthy, which we may not have checked ourselves.

The information we come across on social networks or in the media itself can be true or false. From the conducted research and the obtained results, it can be seen that the students cannot recognize true and false information. They also have little knowledge of its negative impact. Disinformation and misinformation are terms that are often used interchangeably. But although both carry certain dangers to society, they are not the same. Misinformation is misleading, inaccurate, or contains false information, often communicated without the intent to deceive.

Disinformation is most often information shared with the intention of deceiving people. Here the goal is not benevolent. On the contrary, an attempt is made to create division or to arouse fear.

The rise of targeted advertising undoubtedly helps spread misinformation and disinformation. Social media platforms can now profile their users, collecting information about which websites they visit and which posts they like, share or otherwise interact with. It allows them to more precisely target posts and news they are likely to agree with or want to see.

Considering the different forms of malicious information students face daily, it is necessary to familiarize them with certain ways of identifying the reliability of those information, images, or videos.

Identifying disinformation and misinformation can be difficult. A key part of identifying them is developing a critical mindset about the information you consume and checking it against other sources. To verify the reliability of certain information, one should know who the author is and whether it's a reliable source. It is necessary to take into account the person who is the author of the information to check if it is seen as a credible source, if reports in the past have been accurate, and also as an important piece of information; it is to know what other sources are saying on the subject. It is also necessary to check if other sources have shared that information or if it is based on someone's opinion. As an important segment during the research, we will also mention checking the date of publication of the information because sometimes old publications and information are manipulated.

Checking the information's date is one aspect they should check. We are faced with much information that is possibly quite old and from a source with the specific purpose of conveying misinformation that will confuse readers. Apart from the date, the source of information also plays a significant role. Students should check if another source has published the indicated information. They often trust the source and do not check it, leading to misinformation. Identifying and separating disinformation and misinformation can be difficult and often requires extra effort on the reader's part, especially on the student's part.

It is also important to remove the financial incentives that encourage misinformation and disinformation on social media. Currently, platforms make money by delivering targeted content. Popular content earns more than unpopular content. Misinformation and disinformation need to reach their target audience to harm. They rely on microtargeting to reach the people most likely to be affected.

From the questions of this research, we learned from the students that with a large number of them, it happens that certain posts, news, pictures, or information published on social media,



and they don't look at them at all, and a feeling of anger, condemnation, hatred, anger, disappointment, confusion, etc. An emotional reaction appears in them, which they continue to share without identifying or checking, thus contributing to misinformation. That happens either because of a well-thought-out photo or caption, which the person sharing it knows will attract readers. To prevent the spread of this type of misinformation, students (readers) need to stop, think, check the news or information, and only then reach a conclusion. Our own emotions should be removed to help prevent and share something that we are not sure if it is true or not.

One of the simplest ways of manipulating and misinforming students and other readers on the Internet is through photos and videos. Manipulating images is usually done by sharing old photos, and the person who shares them claims that it is new and even connects it to an event that he is aware of will attract attention and thus cause emotions among readers. Another phenomenon is the distortion of the truth, i.e., the sharing of edited photos when certain components are removed from them, and others are added.

Photo manipulation is becoming easier due to the rapid advancement of technology. To protect students and other readers from this method of spreading misinformation, it is necessary to distinguish between an authentic and edited photo or video. Students, like other readers, must think critically about the information they consume, making an effort to question it and open their minds to opposing views. When well-informed, you can decide what to believe and what not to believe. Being exposed to such a variety of information creates a certain vulnerability for us, considering that information is full of bias, manipulation, propaganda, fake news, hate speech, and whatever intentions the author or authors might have. Information disorders (conscious and unconscious misinformation, malicious information) create confusion and misunderstandings, especially among elementary school students.

Since fake news contains wrong (incorrect, untrue) information and usually has a hidden and

manipulative agenda (commercial, political or corporate), not recognizing it leads people astray. It contributes to mutual misunderstandings and is a problem in overcoming conflicts. On the other hand, citizens remain curious but "lazy buyers" of information who do not have time to check all the news that passes through the media daily. This creates room for further growth of misinformation by spreading fake news.

## 6) CONCLUSION

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At a time when the media influence our lives daily, media culture is noticeably neglected in school curricula and teaching processes. And it is necessary to empower citizens to apply media literacy, which will enable them to cope with the dangers and benefits of the increasingly complex media environment. The development of media literacy is a complex process that requires a long-term investment and a systematic and strategically developed national approach. The situation is too alarming, and any delay regarding the development of media awareness causes pessimistic forecasts regarding building a civilized social system.

Media literacy should develop the ability of young people to understand, read and penetrate the core of media content and enable them to perceive, analyze, evaluate and create the media message in different ways. Being exposed to such a variety of information creates a certain vulnerability for us, considering that information is full of bias, manipulation, propaganda, fake news, hate speech, and whatever intentions the author or authors might have. To save ourselves from drowning in this sea of media and information, we need to acquire basic skills and competencies. We need to learn ourselves and then teach others how media and information work. What techniques are used, by whom, and with what intent? We need to develop critical thinking skills, and media and information literacy can be helpful in this regard.

Disinformation can obstruct the public's ability to debate issues and make decisions in three ways. First, both provide false information to students and other readers, sometimes false analysis, and thus lead students to make decisions that are contrary to what they want or are in their best interest.

Second, disinformation is not intended to foster public debate. Quite the opposite. They are almost always polarizing, deliberately pushing people to adopt extreme opinions and beliefs that leave no room for compromise. As the possibility of finding a middle ground narrows, it becomes increasingly difficult for politicians to defend positions of compromise and find solutions that allow for a happy and safe coexistence for all.

Finally, even if disinformation (or misinformation) is not accepted as factual by those who consume it, the effect of exposure sows distrust in media and institutions. When students are served conflicting messages that are extreme and do not fit in the slightest, they lose confidence in all sources of information, including relevant news.

Disinformation is most successful when targeted at those who consume news from a small and consistent number of sources. This often means that the person has chosen those sources and is destined to trust them. It also means that such people are less likely to check information outside their list of sources. The rise of targeted advertising also helps spread misinformation and disinformation. Social media platforms can now profile their users, collecting information about which websites they visit and which posts they like, share or otherwise interact with. It allows them to more precisely target posts and news they are likely to agree with or want to see.

A promising approach for developing media and information-literate students as well as media-literate citizens is through education, which includes all forms: formal, informal, and informational. Formal education occurs in educational systems, such as schools and universities. In contrast, non-formal education takes place outside these formal learning environments, usually in the local

community, but is carried out with a specific intention (and non-formal educational activities aim at acquiring specific knowledge).

In short, the experience encouraged students to improve their learning process, made classes more inclusive, and improved students' critical thinking skills. Media literacy in formal education has another added value; it challenges traditional ways of teaching where students are considered "empty vessels" that come to school to be filled with information. In contrast, media literacy considers teachers and students as active contributors to knowledge transfer and learning. Media literacy strives to teach students "how" to think, not "what" to think.

The general conclusion from the discussions with teachers in primary education is that there is a lack of continuous media education training. The teachers stated that the media literacy training they received was personally and professionally useful. Students gained new perspectives and views on media and information reflected in all subjects (e.g., asking challenging questions, using different sources to compare information, and not just reproducing content but going a step further and making their analysis). The introduction of media literacy in school curricula, starting from the youngest ages and beyond, is necessary for students' media literacy. This alone will enable students to start thinking critically before making a decision. It would help them deal with and spread incorrect (false) information and disinformation. This would be one way of improving students' safety when using the media and the information published by them.

What is important to understand is that media literacy is not about "protecting" children from unwanted messages. Media literacy, therefore, is about helping students become competent, critical, and literate in all media forms so that they control the interpretation of what they see or hear rather than letting the interpretation control them.

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