

TRUE OR FALSE? UNIVERSITY STUDENTS' VIEWS ON 'FAKE NEWS' IN PRIMARY EDUCATION

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Abstract

Current research shows that we read a large amount of information in a short time, but often without distinguishing when this information is true or false. In particular, it becomes apparent that a large number of 'Social Media' users share content with other users, considering it to be true, while it constitutes 'Fake News'. Research in the US shows that internet users in 2016 shared more fake news during the 2016 presidential election than true election facts. In this logic, the recipient of a false news story can be affected due to assumptions, biases or emotional involvement in the news. We should also understand the magnitude of the "risk" involved in receiving information, without checking its sources and validity. For this reason, in this paper, the views of candidate teachers of the Department of Primary Education of the University of Western Macedonia on fake news will be presented through quantitative research. Participants define the content of fake news and, at the same time, note whether they have been informed during their university studies about such issues. Furthermore, several ways to enhance the 'media literacy' skills of the candidate teachers have been proposed. The findings of the research, through descriptive statistics, revealed that the majority of university students are aware of the phenomenon of fake news, but they are not fully informed about how to deal with the phenomenon in school education.

Keywords: *Fake News, Media Literacy, primary education, candidate teachers*

E VËRTETË APO E RREME? PIKËPAMJET E STUDENTËVE TË UNIVERSITETIT MBI 'LAJMET E RREME' NË ARSIMIN FILLOR

Abstrakte

Hulumtimet aktuale tregojnë se ne lexojmë një sasi të madhe informacioni në një periudhë të shkurtër kohe, por shpesh pa dalluar se kur ky informacion është i vërtetë apo i rremë. Në veçanti, bëhet e dukshme se një numër i madh i përdoruesve të 'Social Media' ndajnë përmbajtje me përdoruesit e tjerë, duke e konsideruar si të vërtetë, ndërsa përbën 'Fake News'. Hulumtimet në SHBA tregojnë se përdoruesit e internetit në vitin 2016 ndanë më shumë lajme të rreme gjatë zgjedhjeve presidenciale të vitit 2016 sesa faktet e vërteta zgjedhore. Në këtë logjikë, marrësi i një lajmi të rremë mund të ndikohet për shkak të supozimeve, paragjyqimeve apo përfshirjes emocionale në lajme. Duhet të kuptojmë gjithashtu madhësinë e "rrezikut" të përfshirë në marrjen e informacionit, pa kontrolluar burimet dhe vlefshmërinë e tij. Për këtë arsye, në këtë shkrim do të prezantohen pikëpamjet e mësuesve kandidatë të Departamentit të Arsimit Fillor të Universitetit të Maqedonisë Perëndimore mbi lajmet e rreme përmes hulumtimeve sasiore. Pjesëmarrësit përcaktojnë përmbajtjen e lajmeve të rreme dhe, në të njëjtën kohë, vërejnë nëse janë informuar nga studimet e tyre universitare për çështje të tilla. Për më tepër, propozohen mënyra për të rritur aftësitë e shkrim-leximit në media të nxënësve të shkollave fillore. Gjetjet e hulumtimit, nëpërmjet statistikave përshkruese, zbulojnë se shumica e mësuesve të mundshëm janë të vetëdijshëm për fenomenin e lajmeve të rreme, por nuk janë plotësisht të informuar se si të merren me fenomenin në arsimin shkollor.

Fjalët kyçe: Lajme të rreme, shkrim-leximi i mediave, arsimit fillor, mësuesit kandidatë

Introduction

Research conducted with students has shown that they cannot separate false from true news (Harris F., 2019). Most students seem to stay at the first level of online search for information but do not examine the source's author in-depth, whether it is a post or an authoritative scientific source (Paskin, 2018). These elements are linked to the post-truth era (Modreanu S., 2017). According to the Oxford Dictionary, 2016 was the year of post-truth, which defines it as a time when people respond more to their feelings and beliefs and less or nothing to data and "truth". It is the era in which "objective" facts have less influence on shaping public opinion than appeals to our feelings and personal assumptions (Watson C., 2018).

Added to this discussion is the theory of Digital Humanism (DH), according to which the individual should reflect and have the corresponding "tools" for how he/she receives information and what information he/she receives. The above is linked to the characteristics that digital citizens seem to have. In the context of digital citizenship, they should be functional, critical and attentive technology users, considering ethical and security issues (Schuler D., 2002). Also, to have a positive attitude towards utilizing digital applications that promote cooperation, fruitful dialogue and exchange of views, in a democratic framework of intercultural respect (Ribble M., 2008). It is also noted that digital citizenship also concerns the issue of evaluating any form of digital information, to ensure quality and validity in information. Finally, the digital citizen takes careful action when using the internet and makes decisions that promote democracy and reliable information with the contribution of digital technologies (Hobbs R., 2010).

According to the literature, we no longer discuss whether digital technologies are important or necessary in the educational process. The reflection shifts to the possibilities offered by digital media to our

students, intending to shape critically thinking citizens (Tzifopoulos M., 2023). A finding on which we should focus reveals the inability of our students to effectively "manage" digital technologies and to use, functionally and critically, these tools to assist learning. Recent research has shown that students are familiar with the use of technology, but cannot integrate it effectively into school contexts (Kaeophanuek S., etc. al., 2018).

This "deficit" is inextricably linked to the issue of developing modern school and academic digital competencies and skills of the new generation of students. Even though young people today are "active" in everything digital that exists or "emerges" and, consequently, in social networking applications, they cannot take advantage of this familiarity and "transform" their practices into educational practices. They cannot perceive the added value of technology in the educational process, in the context of Media Literacy (ML) (Livingstone S., 2004; Potter W., 2018). In particular, their inability to search and evaluate the appropriate digital source for educational use and the formation of their respective school digital skills for meaning-building found (Neumann M., etc. al., 2017; Rose-Wiles L., 2018).

The research

This research takes into account relevant research in the field of fake news in education and, especially, research which is focused on the perception of undergraduates about their trust in news sources and awareness of fake news and about the impact of fake news and responsibility for addressing the problem (Melro A., & Pereira S., 2019; Silveira P., & Gancho, S., 2021). This research, which conducted during the spring semester 2022-23, aims to examine the candidate teachers' views on the issue of Digital, Media and Information Literacy in contemporary education. The university students completed an online, questionnaire based on five thematic axes. The first pillar includes questions to clarify the terms digital and media literacy. Students choose those sentences that they consider most appropriate to the content of these concepts. They also give their definitions of the term 'Fake News'. In the second axis, they assess their knowledge of basic computer programs and web applications and state how willing and ready they feel to teach in primary school, taking into consideration information literacy and fake news issues. In the third pillar of the

questionnaire, they answer a question about how they distinguish true from fake news and from which sources they are informed. In the last axis of the methodological tool, they note their proposals for teaching and pedagogical practices regarding the issue of digital and information literacy.

Research Questions

The questions to be answered by this research are as follows:

- *What content do pre-service teachers give to the concepts of digital literacy, media literacy and fake news?*
- *How do they self-assess their digital skills?*
- *From which sources are they informed about issues that concern them?*
- *What are their proposals for teaching in primary school, aiming to shape critically and digitally literate students?*

Sample

127 students from the Department of Primary Education of the University of Western Macedonia (in Florina) participated in this study, from the 2nd to the 8th semester of studies. Specifically, it is evident that 74% (94) were female students and 26% (33) were male students (26.0%). Most students are in the 2nd (43.3%) and 6th semester (29.1%). Slightly smaller is the percentage of students in the 4th semester (18.1%).

Methodology

For the collection and processing of the data, the principles of quantitative research were utilized, with the contribution of the statistical package SPSS (version 29.0). From the processing of research data, with the contribution of descriptive statistics, graphs were created. Variable correlations also occur. In addition, the principles of qualitative research were utilized in the last axis of data processing. Through an open-ended question, students suggest ways to strengthen the Digital Literacy (DL) and Media Literacy (ML) students' skills. From the processing and grouping of their self-reports, with the contribution of Thematic Analysis (Willig C., & Stainton-Rogers W., 2017), corresponding codes were formulated inductively, creating main themes.

Limitations

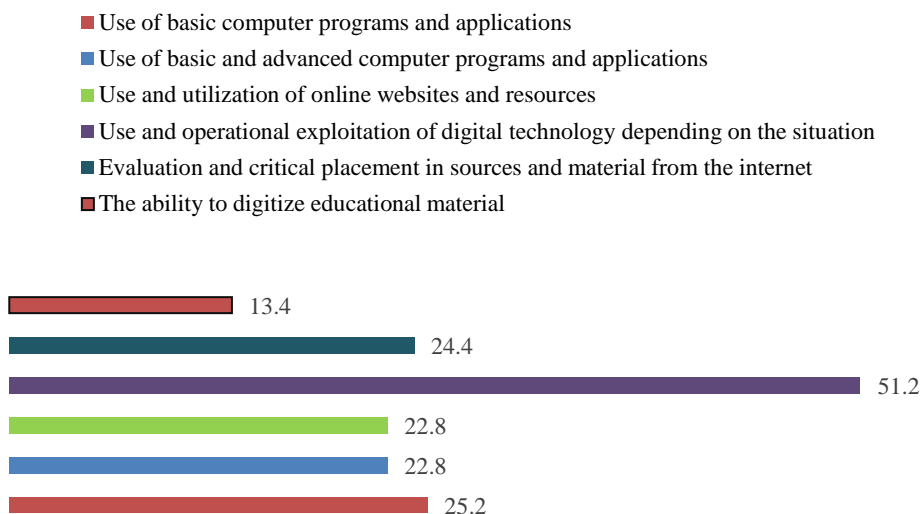
This research has limitations. The first limitation concerns the sample of the study, which is not a representative but a convenient sample. Also, the researcher could conduct in parallel or complementary qualitative research, in order to capture university students' views in depth, on fake news issues.

Research Analysis

Digital Literacy, Media Literacy & Fake News. Definitions

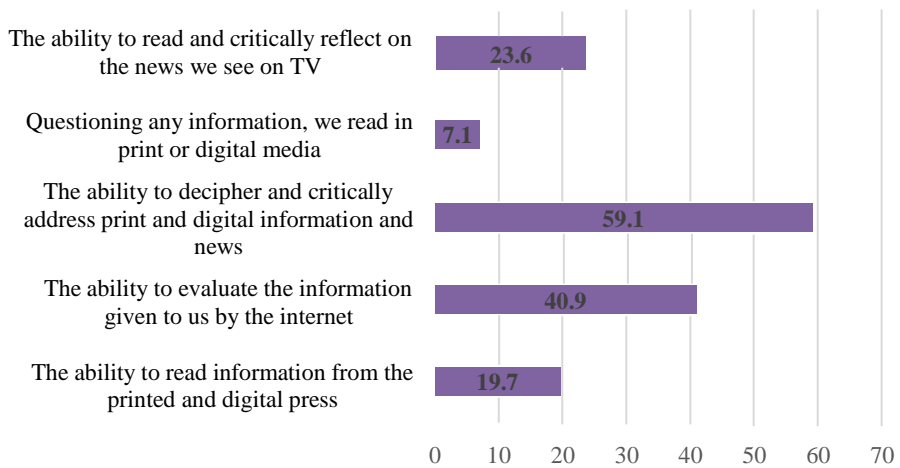
Through their answers introduced in Figure 1, it seems that the highest percentage (51.2%, 65) agree that DL refers to the use and functional utilization of digital technology depending on the situation. The study showed that 32 students believe that DL refers to the use of basic computer programs and applications. A smaller percentage (24.4%, 31) claim that DL is more related to the process of evaluating and critical placement in digital material, sources and bibliography from the internet. The rest of the options gather smaller percentages. The participants show that they have understood the complexity and modern approach to the concept of DL to a fairly good extent. Through statistical analyses, it appears that the higher the semester of study, the more often students answer that the DL concerns the use and functional utilization of technology depending on the situation. ($\chi^2(4) = 18.809$, p-value = 0.001).

Figure 1: The meaning of 'Digital Literacy'



DL is also associated with another term, ML. The candidate teachers seem, in their majority, to have a clear picture of the content of this concept. Specifically, 75 students (59.1%) define ML as the ability to decipher and critically analyze printed and digital information and news. So, they include non-digital news or other source, which is also confirmed by the relevant literature.

Figure 2: The meaning of ‘Media Literacy’



It seems that many students consider that in addition to the above option, the ML also concerns the ability to evaluate the information given to us by the internet (40.9%, 52) and our critical attitude towards the news presented by the media (23.6%, 30), which seems to complement the content of this concept. As well as the ability to read information from print and digital media (19.7%, 25) (Figure 2).

Also, the students included in this research give their definition for 'Fake News'. From the coding of the answers, and the quantification of the qualitative data, the following table emerged with the most frequently occurring words in the definitions given by the research subjects. Words such as disinformation, propaganda, untrue information, unreliable sources, falsification of facts, and manipulation, appear quite often.

Table 1: Most frequently seen words for "Fake News"

Words:	N
Misinformation	43
Serving interests/Propaganda/Done deliberately	26
Information that is not true/Not objective	21
Dissemination of unverifiable news-unsourced/Unreliable	13
Distortion-falsification of facts	10
Manipulation	6
Disorienting news	5
Based, in part, on true facts	4
News "manufactured"	3
Promotion of a specific ideology	2
Purpose to harm a person	2

Digital Technologies: Knowledge, willingness and readiness

The finding on how student-teachers assess their knowledge on how to handle digital technologies is considered important. In particular, through the Likert scale, student-teachers claim that they are "highly" (40.2%, 51) and "very" highly (27.6%, 35) familiarized with digital technologies. They claim that they are tech-savvy and can easily handle corresponding digital media.

The more familiar students claim to be with digital programs and applications, the more ready they feel to enter classrooms and prepare their students, based on the principles of DL and ML ($\chi^2(12) = 43.344$, $p\text{-value} = 0.001$). This picture is complemented by the study finding which shows that the longer the semester of study, the more prepared students feel to inform their students about IL (Information Literacy) issues ($\chi^2(16) = 26.775$, $p\text{-value} = 0.044$).

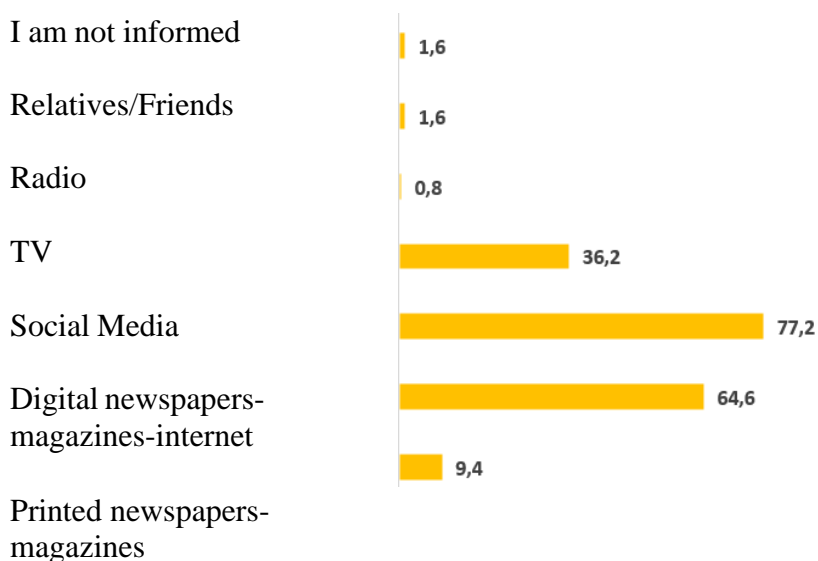
Furthermore, the sample, a high percentage (89.0%, 113), argues that they are willing to teach with digital technologies, aiming to inform their students about how to search, evaluate and critically position themselves in digital material.

This percentage, however, as shown in other relevant research (Ayanwale M., etc. al., 2022), decreases when the sample refers to readiness for teaching based on ML principles or aiming to introduce a digital innovation in the classroom. Here, the percentage (74.8%, 95) "falls" on the scale and is between "moderately" and "highly".

Sources of information

Very few students, as they claim, have come into contact in the context of their academic courses with how to search for digital material, the appropriate source and bibliography or have practised through a laboratory course, as shown by an open-ended question. And to the next question, the answers vary in terms of the sources from which students are informed. The majority of the respondents (77.2%, 98) claim to draw information, mainly, from social media. This was followed by choosing the digital newspapers, magazines and digital portals (64.6%, 80) and television (36.2%, 46) (Figure 3).

Figure 3: Sources of information (%)



In addition, 90.6% (115) of students search bibliographies for their university assignments from relevant scientific portals (e.g. Google Scholar, Scopus), from other scientific papers and repositories (72.4%,

92), from Wikipedia (25.2%, 32) and only 2.4% (3) from social media. However, students of 6th and 8th semester seek more information from valid bibliographic and scientific sources than their fellow students of 2nd and 4th semester ($\chi^2(4) = 10.984$, $p\text{-value} = 0.027$). Marginally less than 50% of the sample (61 students), it seems that to a large extent, they can distinguish true from false news.

Also, there is a high percentage of the respondents (87.4%) who argue that they would help their students to perceive fake news during their school classes, by informing them that they should cross-check the information they found online with other sources.

Table 2: Suggestions for helping students with Fake News

Put filters on school computers so they don't look for any information they want	15%	19
Check all groups what information they are looking for	22,8%	29
Cross-check the information they find with other sources	87,4%	111
Check the URL where they found the corresponding information	43,3%	55
Search for authors of digital resources	59,8%	76
Do not go through the process of reading the news they consider false	3,9%	5
Discuss with their classmates what they consider to be fake news	57,5%	73

Proposals for teaching in the post-truth era

The first theme created through the Thematic Analysis is collaborative learning contexts. This theme includes codes, such as the actions proposed by students to search for the appropriate digital -and non-digital- source in an experiential way, through projects, workshops, case studies, group activities, search for material and its evaluation.

The second theme concerns actions to promote critical thinking, with codes related to the distinction between fake and true news, with students discussing the consequences of "Fake News" in life with the contribution of social media, with discussions giving arguments (debates) and checking the validity of a source or with conflicting

sources, through research and research and with guidance from the teacher.

The third theme is game-based learning. Students believe they can mainly enhance their students' DL-IL when they involve them in team-group action, adventure and strategy games, as they note, which they will either search for and use from the internet or attempt to shape together with their students (Table 3).

Table 3: Candidate teachers' proposals

Themes	Codes
1. Collaborative learning contexts	<p><i>1.1 Experiential activities</i></p> <p><i>1.2 Projects</i></p> <p><i>1.3 Workshops</i></p> <p><i>1.4 Case Studies</i></p> <p><i>1.5 Role-playing</i></p>
2. Critical thinking activities	<p><i>2.1 Comparison of sources/information that are true and false</i></p> <p><i>2.2 Discuss the consequences of "fake news" on people's daily lives</i></p> <p><i>2.3 social media as a "vehicle" for this discussion</i></p> <p><i>2.4 Debates</i></p> <p><i>2.5 Discussions with teachers about the validity of a source</i></p> <p><i>2.6 Student research on the reliability of digital sources/information</i></p>
3. Game-based learning	<p><i>3.1 (Group) Games, of various categories, for each subject (e.g. strategy in History and Language lessons)</i></p> <p><i>3.2 Deception and Disinformation Games</i></p> <p><i>3.3 Engaging in digital games from the Internet</i></p>

Discussion

Students are found to have realized that DL is perceived as a dynamic skill that both teacher and student should possess. This issue is linked to the next question of the research regarding the digital skills of the sample. Students seem to be very familiar with digital tools and corresponding web applications. The research also showed that the more familiar students are with digital technologies, the more ready they feel to inform their students in the future to become critically and digitally literate citizens.

However, it seems, in answer to the third research question, that the percentage of young people who are informed daily by social media is very high. A finding consistent with the relevant research literature (Purcell K., 2011; Pew Research Center, 2022). The positive thing, of course, is that from the students' answers, it seems that for academic issues (bibliography search, preparation and presentation of work at the university) they use, to a very large extent, valid bibliographic databases.

This research, also, starts from the assumption that today's teachers often teach without taking into account authentic situations in learning, such as research that their students could conduct through the internet and complementary digital or non-digital sources, interactive learning through discussion, knowledge discovery through collaborative learning environments and problem-solving strategies, methods that take into account different communicative contexts (cultural respect), alternative forms of evaluation (Griva E., & Kofou I., 2019), modern digital media. The above seems to be of particular concern to the sample of this pilot research, as candidate teachers give their proposals for teaching to cultivate ML through collaborative frameworks, critical thinking promotion activities and playful learning actions.

Conclusions

The relevant discussion will have fruitful results if it focuses on the need to shape educational and pedagogical environments that will move in the context of emerging forms of literacy, ranging from print to digital, media and critical literacy. To achieve this, teachers need to

be systematically supported by a strong educational and policy "agenda" to transform knowledge and shape identities and mindsets to cultivate modern digital skills in 21st-century education (Dimitrov N., & Haque A., 2016).

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