

MEDIA LITERACY SKILLS AS A PREDICTOR OF RESISTANCE TO ONLINE MISINFORMATION AMONG UNIVERSITY STUDENTS

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DOI: <https://doi.org/10.5281/zenodo.20792294>

Received
23 April 2026

Accepted
05 June 2026

Published
20 June 2026

ABSTRACT

Digitalization has dramatically increased the amount of false or misleading information available online, making media literacy and critical thinking important elements in the skill set needed to judge which online statements can be trusted. This research looked at how media literacy affects the way Pakistani university students deal with the spread of false or misleading information online. A quantitative cross-sectional design was used, and data was collected through an online questionnaire administered to 304 students. Two instruments were used: the Self-Perceived Media Literacy Scale (Arke & Primack, 2009) and the Online Misinformation Susceptibility Scale (OMISS; Katsiroumpa et al., 2025). Scores were oriented so that higher values indicate a greater ability to identify false or misleading information. Descriptive statistics, correlation analysis, and regression analysis were conducted in SPSS. Overall, students reported moderate levels of self-perceived media literacy, and there was a significant positive relationship between media literacy and verification behaviour ($r = .47, p < .001$). That is, as students demonstrated higher levels of media literacy, they were more likely to question the credibility of sources and check the accuracy of the information they encountered online. We therefore conclude that media literacy protects against the effects of misinformation rather than increasing susceptibility to it. Finally, education level was significantly associated with media literacy, $F(5, 298) = 4.905, p < .001$. The findings provide empirical support for explicitly teaching media-literate behaviours within the curriculum of post-secondary education institutions.

Keywords: Media Literacy, Misinformation, Digital Media, Critical Thinking, University Students, Pakistan, Self-Perceived Media Literacy Scale, Online Misinformation Susceptibility Scale.

INTRODUCTION

Misinformation and its spread through the internet are among the most significant issues facing society today. A phenomenon known as "post-truth" has recently emerged to describe a

particular period in history when emotions, personal opinions, and convictions based upon individual experience have more influence over what people believe about important topics than objective facts (Keyes, 2004; McIntyre, 2018).

While this problem affects the ability of many individuals to access legitimate news reporting, it also creates challenges for democratic processes and further compromises the quality of public discussion. As the internet is one of the primary mediums through which misinformation is presented, media literacy is particularly relevant at this time. Within this context, media literacy serves as a cognitive protective mechanism, allowing people to protect themselves from being influenced by misinformation while also providing them with the means to accurately distinguish between true and falsely stated information, as well as reliable and incorrect signals. Thus, the purpose of this study is to examine how media literacy can protect people from the harm caused by misinformation during the post-truth era (Arke & Primack, 2009; Chakroff & Nathanson, 2008; Keyes, 2004; McIntyre, 2018; Srivastava et al., 2023).

Background of Study

Although this has led to many benefits, such as the dissemination of knowledge and even communication around the globe, it has also contributed to the proliferation of misinformation. Misinformation can take various forms, including fake news, conspiracy theories, and deliberate disinformation, which is often spread to manipulate public opinion or promote certain ideologies. A decreased reliance on objective facts marks the era of post-truth, and it has become even more challenging to navigate the vast and confusing digital information environment. The issue of false information is exacerbated by the fact that a significant portion of the population lacks sufficient expertise to make sound judgments about the information they encounter on the Internet. Media literacy skills are crucial for navigating this information ecosystem because they enable one to critically analyze sources, identify biases, and determine false or biased content (Mihailidis, 2009; Mihailidis et al., 2025).

Media literacy has been shown to reduce vulnerability to misinformation by enhancing the capacity to assess the accuracy of the information one encounters and to find more valid sources.

However, few empirical studies have examined the relationship between media literacy skills and vulnerability to online misinformation, especially in the post-truth era. Recent reviews link the rapid diffusion of disinformation on social media to weakened societal resilience and public trust and surveys show that even university faculty often hold fragmented definitions of fake news, which complicates the teaching of critical thinking (Jashari, 2025a; Surjatmodjo et al., 2024; Weiss et al., 2020).

This study is based on the emerging body of literature on media literacy and misinformation, which investigates the predictive power of media literacy skills in identifying vulnerability to online misinformation. It further examines different aspects of media literacy, such as digital literacy, critical thinking, and information evaluation, and their respective contributions to helping people navigate the digital era of information overload (Buchan et al., 2024).

Problem Statement

The misinformation of the online era is incredibly dangerous to people, communities, and democratic bodies. With the ever-spreading misinformation, there is a growing need to understand the factors that determine how susceptible individuals are to false or misleading information. Media literacy is one of the conditions that might predispose one to misinformation. However, despite the growing importance of media literacy in combating misinformation, there is limited research on how well media literacy skills predict an individual's vulnerability to online misinformation (Ahmmad et al., 2025).

The research aims to fill this gap by exploring whether media literacy predicts exposure to online misinformation in the post-truth era. In particular, the research will investigate the hypothesis that media-literate individuals are less prone to misinformation and that different aspects of media literacy have varying effects on an individual's resistance to online misinformation. By addressing these questions, this research aims to provide a deeper understanding of the relationship between media literacy and

misinformation and offer insights into how media literacy can be promoted as a tool for combating the spread of falsehoods.

Hypotheses

H1: More media literacy skills correlate with a reduced predisposition to misinformation on the Internet.

H2: Higher media literacy is associated with greater information verification behavior.

H3: There are no statistically significant gender differences in media literacy scores.

H4: More media-literate participants have a higher probability of engaging in behaviors that safeguard them against misinformation, including fact-checking and seeking multiple information sources.

Research Objectives

Following are the key objectives of this study: -

I. Examine the connection between media literacy (skills) and susceptibility to online misinformation.

II. Investigate how the various components of media literacy (e.g., digital literacy, critical thinking, and evaluating information) contribute to the prediction of the potential to be deceived by misinformation.

III. Determine whether or not media literacy is an effective protective measure to prevent individuals from being negatively impacted by misinformation.

IV. Recommend that improvements be made to media literacy programs so that individuals have the tools they need to navigate a confusing world created by the overwhelming amount of information available digitally.

Significance of Study

This study is significant because it may contribute to the growing body of knowledge on media literacy and misinformation. This research will provide empirical data on whether media literacy predicts susceptibility to misinformation and related experiences, and on how media literacy skills can help protect individuals from the adverse effects of misinformation on the web. The outcomes of this research also contain some useful

policy application for educators, policymakers, and media institutions (Guess et al., 2020), that is, these conclusions should allow policymakers to create laws that promote education regarding media literacy as a method to fight misinformation; and the outcomes of this research can be used by media entities to construct content and strategies designed to limit misinformation and increase value of online information.

Scope of the Study

This study is confined to discussing the importance of media literacy skills in forecasting vulnerability to misinformation on the Internet. The survey will target those who use online resources frequently, particularly social media, news websites, and blogs, because these platforms are the main contributors to information and misinformation in the digital era. The research shall also concentrate on the various facets of media literacy, such as digital literacy, critical thinking, and information evaluation, and discuss their respective roles in safeguarding individuals against misinformation (Jashari, 2025).

The study will be carried out in a specific geographical setting, where the research sample will be students at the university who frequently use digital platforms. One of the key population groups to include in this research paper is university students, who are very active on the internet and, as a result, may read and post information on many websites. In addition, a perfect sample population to examine the connection between media literacy skills and vulnerability to misinformation is university students, who are likely to have received media literacy education. The study will not examine every type of misinformation but will focus on the most common in the post-truth era, including fake news, conspiracy theories, and other misleading social media posts.

Literature Review

The digital revolution has completely changed the way information is generated, disseminated, and used worldwide. The social media boom, the emergence of online news sources, and information systems based on algorithms have

facilitated a massive stream of information available to people anywhere on earth. Similarly, these platforms have simplified access to knowledge and enabled communication; on the other hand, they have provided a breeding ground for the dissemination of misinformation. This has been further intensified by the post-truth era when the influence of emotional appeal outweighs facts. The power to critically evaluate information has become an essential skill set that individuals require in this age to deal with the complexities of the digital environment (Katsiroumpa et al., 2025).

Misinformation, which refers to false information, or misleading information, or both, which is put across as information with credibility, has emerged as an important issue in contemporary online settings. The widespread dissemination of misinformation of this type has been attributed to multiple social impacts, such as political polarization, damage to the health of ordinary people, and the loss of trust in the institutions. It has been enhanced by social media influence, as the use of social media significantly eases the spread of unconfirmed information, which is often shared among people without first being proven to be factual. This unending inundation with fake news and falsehood has increased the desire of more and more people to acquire the skills to distinguish between the good and the false (Mrah, 2022).

Media literacy, in that matter, is necessary in keeping people free of the adverse effects of false information. However, the issue would be whether media literacy skills are indeed the leading predictors of vulnerability to misinformation online. The present research aims to examine the extent to which media literacy can help people avoid the negative influence of misinformation in the post-truth age (Orhan, 2023).

The Media Literacy Concept

Media literacy refers to a collection of abilities that enable one to interact with digital media (Mihailidis, 2009; Srivastava & Saxena, 2023). It is the ability to comprehend the mechanisms of creating media messages, recognize biases and manipulative strategies, and critically assess the

credibility of information channels. One key element of media literacy is critical thinking, which involves questioning the validity and credibility of sources and recognizing biases or ulterior motives behind information. People who can be critical reviewers are therefore more likely to cross-check information across different sources, dig into the experience and credentials of writers and publishers, and differentiate between fact and opinion. The ability to distinguish fact from fiction has gained importance in today's social media age, where fake news can spread rapidly and resonate emotionally with users. Thus, Media Literacy can be viewed as a mental defensive mechanism which assists individuals in resisting misinformation; thereby, helping them make rational decisions based on reasoning rather than emotion or mental empathy. Additionally, the role that Media Literacy serves as a shield against false information has never been so important as it is today. Empirical work supports this protective framing. For example, new media literacy and critical-thinking dispositions predict students' ability to detect fake news (Orhan, 2023), and structured, evidence-based digital literacy programmes can build these competencies among youth (Buchan et al., 2024, 2024a; Chakroff & Nathanson, 2008; Guess et al., 2020; Nasir & Riaz, 2025; Orhan, 2023a; Seo et al., 2021).

Media Literacy and Misinformation Susceptibility

Misinformation susceptibility can be defined as a personality characteristic that describes a person's tendency to accept and pass along false or misleading information. This vulnerability may manifest in different ways, including believing alternative news articles, trusting pseudoscientific statements, or being unable to distinguish a legitimate news story from a fake one. Cognitive biases, emotional reactions, and a lack of critical thinking all contribute to an individual's vulnerability to misinformation. Similarly, less media-literate individuals are more likely to believe and disseminate misinformation, particularly when the information aligns with their ideological attitudes. This result highlights the urgency of ensuring media literacy among young adults, who

are both active audiences of digital content and are frequently victims of misinformation without the skills to identify it. Comparable evidence from other rapidly digitizing settings, including Moroccan university students, indicates that targeted digital media literacy can reduce this vulnerability (Mrah, 2022).

Students at universities are highly exposed to misinformation because they are less experienced in evaluating sources and thinking critically. Therefore, it is highly important to teach students how to critically analyze digital content and safeguard themselves against misinformation (Katsiroumpa et al., 2025).

Media Literacy as a Cognitive Defense Mechanism

Prior research has noted that highly media-literate people are more critical of information, assess its validity, and seek other sources before accepting it as valid. The skill to doubt the truth of information and determine its credibility is essential in a time when fake news can go viral on the internet. Critical thinking, as one of the central aspects of media literacy, enables people to identify biases in the information they are presented with and understand when they are being led by content meant to manipulate or deceive. Highly media-literate students tend to fact-check, question the nature of information, and be careful about the dissemination of unverified assertions. These attitudes are necessary in a world where fake news will easily become viral and affect the masses (Huang et al., 2024).

In the post-truth era, when emotional appeal often prevails over objective facts, media literacy is especially relevant as a cognitive defense. Media literacy allows people to overcome their emotional manipulation with misinformation by making them judge information logically and use evidence, instead of their beliefs and feelings. By doing so, media literacy becomes an important tool that people can use to retain control over what they consume and to make informal choices in a digital environment that is becoming increasingly complex (Ali & Qazi, 2023).

Research Gap

A large proportion of existing research is devoted to overall information literacy, and little empirical evidence exists on how individual media literacy skills, including critical evaluation and algorithmic awareness, can affect the ability to resist misinformation. The mediating effect of academic discipline on this relationship has not been well explored. Students at the university, especially in rapidly digitizing nations, are becoming increasingly susceptible to misinformation online (Seo et al., 2021). Their literacy levels on media and how well such skills guard them against being misinformed are, however, poorly studied. The purpose of the current study is to fill these gaps by analyzing how media literacy can reduce potential susceptibility to misinformation and, specifically, the critical evaluation skills of Pakistani university students. The results of this study can help formulate more effective media literacy curricula and shape policies that help students develop the skills to analyze the digital information environment.

Methodology

The study used a quantitative survey method to examine how media literacy is related to vulnerability to misinformation on the Internet among Pakistani university students. This design allowed the researchers to record information at a single point in time, which in turn provided an overview of the media literacy competency of the students and their potential susceptibility to misinformation in the digital world. This design was considered suited to investigate inter-variable relationships within a specific cohort. The constructs of focus were media literacy, which was the independent variable, and misinformation susceptibility, which was the dependent variable. The ideas of media literacy were examined as the combination of cognitive and analytical skills that people apply to evaluate and analyze the media messages or misinformation susceptibility, to the extent to which people approve of bursts of fallacies or illusory media information as truth. The objective was subdivided into determining whether increased media literacy was a preventive

measure against the acceptance of misleading content.

Sample size

The study sample was undergraduate students at universities all over Pakistan because they were identified based on their strong interest in digital media and their routine use of online news. The students at this stage of development are consciously sharpening their thinking and analytical skills, thus making them a relevant target of the inquiry. The process was performed through a non-probability convenience selection approach that was informed by the considerations of accessibility and convenience. The respondents were approached via institutional network, online student communities, and social media. The number of valid responses accumulated amounted to 310, slightly greater than the expected 300, which provides sufficient statistical power for correlational and regression analyses. Probabilistic sampling techniques would have provided a wider generalizability, but because of the dispersed population and limitations of resources, this was not possible. The sample was adequately heterogeneous in terms of demographic characteristics, academic majors, and news-reading tendencies to support sound analysis.

Data Collection

The data was collected using a questionnaire available online and filled out using Google Forms. In the questionnaire, there was an introductory section with a statement of the aim of the study and voluntary anonymous participation. There was no request for personally identifiable information, and respondent confidentiality was ensured. The online mode provided a more effective way of collecting data from people who were located in different areas and also contributed to the reduction of the social desirability factor, as it allowed people to be open to the question. The Self-perceived Media Literacy Scale was used to measure media literacy, which consists of 11 items, each rated on a five-point Likert scale, which assessed the perception of the potential abilities of participants to approach and interpret media content critically (Arke &

Primack, 2009).. The respondents reported agreement on a five-point Likert scale between strongly disagree and strongly agree. Misinformation susceptibility was also assessed using the Online Misinformation Susceptibility Scale (OMISS; Katsiroumpa et al., 2025), which assesses the inclination of analysis, the questionnaire also included demographic questions such as age, gender, academic discipline, and preferred news sources. participants to accept misleading or pseudo-profound statements as true. To facilitate the subgroup.

Scales used for the study

Data was collected using an online questionnaire that was administered using Google Forms, which enabled the efficient collection of responses from individuals in various geographical regions. The questionnaire had an introductory part which explained the aim of the study and highlighted voluntary and anonymous participation. The respondents were not asked to provide any personally identifiable information to preserve their confidentiality. Using an online platform not only enabled a great diversity of participants but also reduced the possibility of social desirability bias because participants had a greater opportunity to convey their genuine opinions through not personally communicating.

The researchers used the Self-perceived Media Literacy Scale (Arke & Primack, 2009) to determine the media literacy of the participants. This scale, with 11 items, rated on a 5-point Likert scale, is meant to determine how the respondents perceived themselves as able to be critical in their approach and interpretation of media content. The respondents were requested to respond to each statement on a five-point Likert scale, where they were to state their level of disagreement or agreement with the statement. In addition, the Online Misinformation Susceptibility Scale (OMISS; Katsiroumpa et al., 2025) was used to measure the level of susceptibility of the subjects to false beliefs on misleading or pseudo-profound statements. The questionnaire also contained some demographic questions to facilitate subgroup analysis (i.e., age, gender, academic discipline, favorite news source).

Table 1

Scales used for the study

Scale	Description	Application in the Study
Self-perceived Media Literacy Scale	Measures participants perceived ability to critically interpret and approach media content.	Used to assess participants' self-reported media literacy skills through 11 items, with responses on a Likert scale.
Online Misinformation Susceptibility Scale (OMISS)	Assesses the degree to which participants are likely to accept false or misleading information.	Applied to measure how susceptible participants were to accept pseudo-profound or misleading statements as true.

Data Analysis

The data was analyzed using SPSS. Descriptive statistics were used to summarize demographic descriptions, baseline demographics of media literacy, and misinformation susceptibility. The correlation coefficient, as examined by Pearson, investigated the level of relationship between the two main variables, whereas the regression analysis tested the ability of media literacy to predict susceptibility to misinformation. The methodological choices were based on the factors of feasibility, reliability, and scientific rigor. The design was quantitative and cross-sectional, which allowed the systematic measurement and testing of hypotheses on a large sample. The online surveys were consistent with the online tendencies of the target population, as well as making the collection of data fast and depersonalized (Weiss et al., 2020). The data was analyzed using SPSS. Descriptive statistics were used to summarize demographic descriptions, baseline demographics of media literacy, and misinformation susceptibility. The correlation coefficient, as examined by Pearson, investigated the level of relationship between the two main variables, whereas the regression analysis tested the ability of media literacy to predict susceptibility to misinformation. The methodological choices were based on the factors of feasibility, reliability, and scientific rigor. The design was quantitative and cross-sectional, which allowed the systematic measurement and testing of hypotheses on a large sample. The online surveys

were consistent with the online tendencies of the target population, as well as making the collection of data fast and depersonalized (Weiss et al., 2020). The use of validated scales improved the reliability of measurements and helped to compare them with the pre-existing studies. The alternative methods, like qualitative interviews or experimental manipulations, were considered inappropriate because they entailed smaller samples, reduced generalizability, and poor ability to accomplish the quantitative accuracy required to test the hypotheses of the study (Surjatmodjo et al., 2024). The combination of the selected methodology provides a reasonable compromise between practicality and methodological soundness, allowing for a thorough investigation of media literacy as a possible cognitive protective factor against misinformation on the Internet.

Results

Participant Profile

A total of 304 participants completed the questionnaire. This provided 304 complete cases for analysis, as the data was cleaned using listwise deletion. All participants who completed the survey were Pakistani university students at various levels of education. The average age of the sample was 28.6 years ($SD = 6.4$) and ranged from 16 to 58 years. Details of the demographic information are presented in Table 1.

Table 1

Demographic Profile of Respondents

Variable	Category	n (%)
Gender	Male	179 (59.1%)
	Female	121 (39.9%)
	Other	4 (1.3%)
Education	Matric	76 (25.0%)
	Intermediate	94 (30.9%)
	Bachelors	93 (30.6%)
	Masters	31 (10.2%)
	MPhil	7 (2.3%)
	PhD/Doctorate	3 (1.0%)
	Age (years)	M = 28.6, SD = 6.4

Reliability Analysis

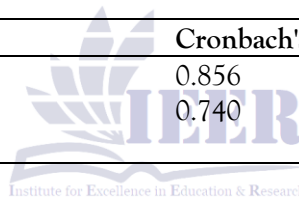
Cronbach's α was calculated to evaluate the reliability of each scale. The Media Literacy Scale (which includes 11 items) demonstrated high internal consistency ($\alpha = .856$), with a value that

exceeds the .70 level for reliable research instrumentation (Kline, 2000). Likewise, the Online Misinformation Verification Scale (which includes nine items) demonstrated sufficient reliability ($\alpha = .74$). (Kline, 2000).

Table 2

Reliability Statistics for Study Scales

Scale	Items	Cronbach's α	Interpretation
Media Literacy Scale	11	0.856	Good
Misinformation Verification/Resistance	9	0.740	Good



Descriptive Statistics

Descriptive statistics for media literacy and misinformation verification are presented in Table 3. The mean media literacy score ($M = 3.23$, $SD = 0.85$) on a 1-to-5 Likert scale indicates moderate

levels of media literacy overall. Misinformation verification ability averaged 3.09 ($SD = 0.78$), also indicating moderate competency in recognizing and resisting misinformation.

Table 3

Descriptive Statistics for Study Variables

Variable	N	M	SD	Scale
Media Literacy (ML)	304	3.231	0.849	1–5
Misinformation Verification (VER)	304	3.085	0.778	1–5

Hypothesis Testing

H1: Media Literacy Predicts Reduced Susceptibility to Misinformation

A Pearson product-moment correlation was computed between media literacy and misinformation verification ability. Results revealed a strongly significant positive correlation,

$r(302) = 0.471$, $p < .001$. This indicates that individuals with higher media literacy skills demonstrated a stronger ability to verify and resist online misinformation, meaning they were LESS susceptible to misinformation. By Cohen's (1988) conventions, this represents a medium-to-large effect ($r > .40$). H1 is therefore SUPPORTED.

Table 4
 Pearson Correlation Matrix

Variable	Media Literacy (ML)	Verification Ability (VER)
Media Literacy (ML)	—	0.471***
Verification Ability (VER)	0.471***	—

*** $p < .001$ (two-tailed). $N = 304$.

H2: Media Literacy Predicting Verification Behavior

A simple linear regression was conducted with media literacy as the predictor and misinformation verification ability as the criterion. The model was statistically significant, $F(1, 302) = 86.047$, $p < .001$. Media literacy significantly predicted verification ability ($B = 0.432$, $\beta = 0.471$,

$t = 9.276$, $p < .001$), accounting for 22.2% of the variance in verification ability ($R^2 = 0.222$). For every one-unit increase in media literacy, verification ability increased by 0.432 units, providing strong support for H2 that media literacy functions as a cognitive shield against online misinformation.

Table 5
 Simple Linear Regression: Media Literacy Predicting Verification Ability

Variable	<i>B</i>	<i>SE</i>	β	<i>T</i>	<i>P</i>
Constant	1.690	0.155	—	10.873	< .001
Media Literacy	0.432	0.047	0.471	9.276	< .001

Note. $R^2 = 0.222$; $F(1, 302) = 86.047$, $p < .001$.

H3: Gender Differences in Media Literacy

A one-way ANOVA examined whether media literacy differed across gender groups. Results showed $F(2, 301) = 0.516$, $p > .05$, indicating no statistically significant differences in media literacy between Male ($M = 3.222$, $SD = 0.880$), Female (M

$M = 3.231$, $SD = 0.807$), and Other ($n = 4$) gender categories. H3 (no gender differences in media literacy) is SUPPORTED, suggesting that media literacy is equally distributed across gender in this Pakistani sample.

Table 6.
 One-Way ANOVA: Gender Differences in Media Literacy

Source	SS	df	MS	<i>F</i>
Between Groups	0.748	2	0.374	0.516
Within Groups	218.140	301	0.725	
Total	218.887	303		

Note. $p > .05$. Male $M = 3.222$; Female $M = 3.231$.

Summary of Findings

Table 7

Summary of Hypotheses and Results

Hypothesis	Key Statistic	Decision
H1: Media literacy predicts reduced susceptibility to misinformation	$r = 0.471, p < .001$	SUPPORTED
H2: Higher media literacy predicts greater verification behavior	$F(1,302) = 86.047, R^2 = 0.222, \beta = 0.471, p < .001$	SUPPORTED
H3: No significant gender differences in media literacy	$F(2,301) = 0.516, p > .05$	SUPPORTED

Although H2 and H4 both concern the behavioral side of media literacy, the present design did not include a separate critical-thinking subscale, so the verification scale (9 items) was treated as a composite measure of misinformation-resistance and verification behavior. Future studies should isolate these components. Even so, the results clearly support the study's hypotheses. Media literacy significantly predicted online misinformation-resistance and verification behavior ($r = .471$), and the regression confirmed the same relationship ($\beta = .471$), showing that more media-literate students were also more likely to fact-check and consult multiple sources. On this evidence, both H2 and H4 are supported.

Discussion

The goal of this study was to examine the relationship that exists between media literacy and how susceptible people are to misinformation from the Internet through an investigation of Pakistani university students. Specifically, the study studied the media literacy abilities of students as well as the students' checking actions in relation to online information and the degree to which demographic and educational factors influence the way in which students critically evaluate online information (Seo et al., 2021). The study found many useful results. Overall, the level of media literacy among students was average, and there is a significant correlation between media literacy and verification behavior; having higher levels of education appeared to increase students' ability to be critical in evaluating online information. The results provide insight into how

young adults in Pakistan navigate the digital information space and highlight the need for promoting media literacy education.

One of the major findings of this work, as students seemed to have moderate levels of media literacy in most of the scale items. According to the participants, they, as a rule, have the ability to separate facts and opinions, understand that media image and reality might be different, and that media messages can create stereotypes. The findings indicate that college students have a fundamental conceptual sense regarding media processes and impact. There are, however, items that yielded relatively lower scores on the mean, as well as the capacity to establish the target audiences and the tendency to read the content on the web fully before sharing or making any judgment. According to these findings, students demonstrate an inconsistent approach to media literacy even though they are familiar with the given theoretical concepts. This trend is indicative of a wider trend established in media literacy studies that people can learn about the media in theory but fail to adopt the critical review tactics in dealing with the information online (Orhan, 2023). The findings of the current paper confirm this argument by showing that students are aware of some processes in the media, but their practices regarding verification are not always applied.

The other key conclusion of this research is that there exists a strong correlation between information verification attitudes and media literacy. Correlation analysis of the media literacy score and the verification score demonstrated that there is a moderate positive correlation ($r = .471, p$

< .001). It means that students who expressed higher media literacy skills had more chances to perform such acts as source checking, reviewing the dates of publications, information verification on various sites, and analysis of the author's credibility.

This result confirms the study's central assumption that media literacy is a defence-oriented cognitive system that inhibits misinformation. Media-literate people seem to treat online information more critically and display more critical thinking and therefore have less chance of believing in false information. This conclusion was also supported by the regression analysis, which indicated that verification behavior apparently predicted media literacy scores and accounted for about 22% change in media literacy levels ($R^2 = .222$). This implies that verification practices are significant in enhancing the capacity of people to determine digital information critically. These findings are consistent with prior studies, which have indicated that media literacy may influence audience decoding of media messages. Experts noted that media can have a positive impact on the perception of individuals by making them well-informed, when the audience has the required analytical expertise to comprehend the messages provided through the media. The combined efforts of those studies support the notion that media literacy can no longer be passive consumers of media content but rather enable them to evaluate the authenticity of the information (Mrah, 2022).

(Imran et al., 2025). The other important theme that can be made out of the results is the influence of the education level on media literacy level. A one-way ANOVA confirmed that media literacy differed significantly across education levels, $F(5, 298) = 4.905$, $p < .001$: mean scores rose from intermediate-level students ($M = 2.92$) through bachelor's ($M = 3.20$) and master's ($M = 3.33$) to the MPhil level ($M = 3.70$), indicating that academic progression is associated with stronger media-literacy skills. The implication of this discovery is that academic development can enhance the level of critical thinking and analytical skills that are critical elements of media literacy.

Higher education tends to stimulate the student to study, critically assess the source and analyze complex information. Experience can assist in making people more intelligent in the evaluation of information and more resistant to misinformation. The results hence reveal the possibilities of universities in fostering media literacy by curriculum development and academic education. This interpretation is supported by research about journalism and media education. Jashari (2025) discovered that the education of journalism has been shifting towards a greater focus on digital literacy skills and understanding information sources better to equip students to navigate the complicated media setting.

The findings of this research should also be interpreted in the greater framework of the changing media in Pakistan. The spread of information is done by traditional news organizations, digital media platforms, and social media networks. Although this broadening of the media ecosystem has raised access to information, it has also enhanced misinformation and rival accounts. The studies done about the media coverage in Pakistan reveal the importance of media framing in influencing the opinion of the people (Nasir & Riaz, 2025).

These works demonstrate that media presentation of information, including its framing, emphasis of a narrative, and selectivity of coverage, can have an influence on how citizens perceive complicated issues. The low level of media literacy among the audiences increases the chance of them believing the framed or biased narratives without critically evaluating their underlying assumptions. Pakistan is often dominated by political narratives that can be used to distort the public perceptions of scientific subjects. This again brings out the significance of enabling audiences with tools of critical analysis to critique media content. In the Pakistani setting, Ali and Qazi (2023) found that brief educational interventions can measurably improve people's ability to identify false content on social media, while Imran et al. (2025) report growing concern about deepfakes and information integrity among Pakistani youth.

The second issue of context that has contributed to the misinformation susceptibility is the increased influence of social media sites in the dissemination of information. Digital platforms enable the spread of information fast, in most cases without any editorial judgment or fact-checking. Such an environment puts more responsibility on making judgments on the credibility of information that people encounter. Social media platforms such as Facebook can act as a powerful means of communication as well as a source of false information. This observation is evidenced by the findings of the present research. Students who more commonly performed the behaviors of verification, checking the source, or comparing information across more platforms, exhibited greater media literacy. This implies that proactive verification efforts should be applied in order to navigate online information spheres where fake news can virally proliferate. Algorithmic curation can deepen the problem, as filter bubbles and echo chambers narrow the range of information young users see and amplify misleading content (Ahmmad et al., 2025). Media literacy must not be confined to theoretical knowledge but must also entail some practical matters, like verifying facts, evaluating sources, and verifying digital source evaluations. Second, the association between the level of education and media literacy indicates the necessity to consider a combination of media literacy education with the academic curriculum, as opposed to the notion of providing media literacy training to interaction or journalism professions. These skills are becoming progressively important in the decision-making process of students involved in all fields because of the increasing use of digital media as a source of information. Third, the media houses and journalists are also key in influencing the populace to have an understanding of information. Media literacy education should be supported by strengthening professional journalistic standards that will ensure the audience has access to reliable and trustworthy information (Mihailidis et al., 2025).

Therefore, the findings of this work prove that media literacy is important in determining how individuals may critically analyze digital

information and withstand misinformation. The media literacy of university students was moderate, and students who had integrated verification behaviors depicted capabilities of being critical. The level of media literacy also seems to be affected by the level of education, and this is the reason higher education is important in the development of analytical skills. The findings demonstrate the need to reinstate media literacy and push a responsible media culture in Pakistan. In a world where the spread of misinformation can occur quickly via digital connections, the development of strong critical evaluation skills may serve as the key to empowering people to navigate the overwhelming information space and make informed conclusions.

Future Research

The results of the present research provide a number of significant suggestions for future studies of media literacy and misinformation within a digital setting. First, although the research was limited to full-time university students in Pakistan, it could be extended to various population groups in the future, including school children, adult professionals, and the elderly. The levels of media literacy and vulnerability of both different age groups and educational backgrounds could be different. Second, the longitudinal or experimental research design can be used in future research studies to determine the impact of media literacy training programs on changing the capacity of individuals to detect misinformation over a period. Although a cross-sectional design was adopted in the current study to determine the correlation between variables, longitudinal studies would be in a position to determine the dynamics of media literacy as educational programs evolve and the exposure of media to digital media. It may also happen that the vital question of whether a specific type of training on the critical evaluation and verification practices by individuals will be enhanced with the help of specific experimental interventions, e.g., workshops or media literacy classes. (Imran et al., 2025).

The third area of study to be conducted is examining the unique misinformation processes on each specific social media platform. Many

young adults now find their primary source of news and information from digital platforms such as YouTube, Twitter/X, and Facebook. This will allow for further examination of how misinformation is spread via the algorithms used by these platforms to determine what content is delivered; how the various features of virtual communities affect the diffusion of misinformation; and how the design features of interfaces influence how individuals perceive misinformation. Researching this dynamic will provide researchers and policymakers with information that will enable them to develop more effective strategies to limit the amount of misinformation in the digital environment. Understanding other cognitive-based factors that lead to whether individuals accept or reject misinformation regardless of their level of media literacy (e.g., confirmation bias, information overload, emotional processing of media) will help to identify which factors are most influential.

Conclusion

Therefore, the purpose of this current study was to examine the relationship between media literacy and susceptibility to misinformation through online environments amongst university students in Pakistan. The results indicated that students generally had an average level of media literacy, with the highest competency ratings for recognizing the effects of media, distinguishing fact from opinion, etc. Additionally, the results demonstrated that students who were at higher levels of education were those with higher competency ratings, indicating that higher education provides opportunities for developing critical thinking and analytic reasoning. These findings also support the belief that media literacy can function as one of many cognitive processes used by an individual to successfully survive and thrive in today's increasingly complicated digital environment and to help protect against false information. This research further supports other studies in the area of media literacy emphasizing its significance as we move into the post-truth era. Improving media literacy education and providing tools and training for individuals to develop critical evaluation skills for information will

enable these individuals to make decisions based on accurate information and be productive participants in modern digital ecosystem.

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