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An Assessment of Media Education's Role in Misinformation Combating-Competency

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Abstract

With the rapid increase in internet penetration and the use of new media, the information ecosystem is becoming increasingly dynamic. The spread of misinformation has increased, creating a severe problem. College students are heavy users of the internet and social media in the Nepali context and are considered one of the most vulnerable groups due to their exposure to misinformation. This study examines the role of media education in enhancing students' ability to identify, evaluate, and respond to misinformation. It assesses and analyzes perceptions of media literacy levels and the ways media education influences awareness, verification practices, and sharing behavior on social media. This qualitative research is guided by observation and is based on primary data collected through Focus Group Discussions (FGDs) with two groups of five students and Key Informant Interviews (KIIs) with three experts and media educators. The expected findings were that students with media education would be more competent in countering misinformation; they would show greater critical awareness, verify information more effectively, and be more responsible in information sharing. The findings confirm these expectations, contribute to broader academic discourse, and highlight the need for more effective media education and improved media literacy to counter misinformation and combat disinformation.

Keywords: digital natives, information disorder, media education, media and information literacy

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Introduction

The rapid growth of internet penetration and the availability of smartphones has greatly increased the use of social media. Due to easy access to media platforms, the flow of information has become massively high. Information overload has occurred. The possibility of spreading misinformation has reached a greater extent. The floodgate of misinformation has created a huge challenge in identifying factual information. Amid this situation, almost all social media–using college students are facing serious difficulties distinguishing fact-based information from misinformation and disinformation (Paudel, 2025a). Inadequate media literacy and a lack of competencies to combat misinformation

make college students receive and share false information knowingly or unknowingly. With the speedy advancement of media technology and content creation through Artificial Intelligence (AI), the challenge of separating content—whether Augmented Reality (AR), Virtual Reality (VR), "fake news," deepfakes, synthetic content, or factual evidence—has become even more difficult. Increased circulation of misinformation has posed serious challenges to democratic strength. In such a scenario, media education is a key strategy to combat misleading information (Paudel, 2025b). Researchers have worked on these issues globally, but in our context, empirical studies are still inadequate.

The flow of information these days is marked by an unprecedented volume moving through digital channels, surpassing traditional editorial gatekeeping systems and fact-checking processes. Information production has been democratized, resulting in genuine civic and epistemic advantages through the free flow of information. However, it has also established conducive environments for spreading misinformation—false, inaccurate, or misleading information shared irrespective of the intent to deceive (United Nations, 2026). Misinformation, disinformation, untruths, fake news, malinformation, and similar phenomena represent pollution of the digital ecosystem. The collectivity of these terms, which Wardle and Derakhshan (2017) call information disorder, has become one of the most challenging issues of the digital era. Such information disorder has been reported to have implications for community health decision-making (MacFarlane, 2020), electoral integrity (McKay & Tenove, 2021), and public trust in media and journalism.

Information disorder in the new media age is now becoming massive. In Nepal, the shift toward digital-first media consumption has been uneven and rapid. Internet penetration in the country was 56.0% at the end of 2025 (Data Reportal, 2026). Traditional media—print and broadcast outlets that once served as the main news sources for the population—are rapidly being replaced by social media platforms, especially Facebook, YouTube, and TikTok, particularly among youth. Misinformation and disinformation have become very common in our society. Some media research institutions, such as the Centre for Media Research (CMR) Nepal, have repeatedly recorded viral misinformation on these platforms related to politics, natural disasters and events, and public health crises (Aryal, 2025). Despite this growing concern, systematic investigation of the truth-assessment capacity of Nepali college students is still lacking. Kunwar and Prajapati (2025) conducted a study examining the effectiveness of media and information literacy (MIL) workshops for youths aged 10–19. They carried out a post-workshop survey with 2,935 respondents, six focus group discussions, and six key informant interviews with participant educators and students. Their study assessed the impact of information and media literacy education on fostering critical thinking and combating misinformation. They noted, "the findings reveal that social media dominates as both the primary information source, leading news and information consumption, and misinformation exposure" (Kunwar & Prajapati, 2025, p. 137).

Among youth, college students hold a very consequential place in the information ecosystem. Almost all college students are digital natives (Prensky, 2001), and they represent the future of democracy. Paudel (2024) notes that the inability to critically assess and share information responsibly not only influences the short-term information environment but also

the future well-being of democratic discourse in society and the nation.

This concern is reinforced by overwhelming evidence that technological familiarity does not necessarily translate into evaluative competence. Kirschner and De Bruyckere (2017) have convincingly criticized the so-called digital native presumption, supported by empirical research by McGrew et al. (2017). Even students from BCA and BSc CSIT, who are expected to be familiar with technology, were not fully convinced that they should evaluate information on social media before sharing it. According to McGrew et al. (2017) today's students are more likely to learn about the world through social media than through traditional sources like print newspapers. Students must know how to evaluate the content that flashes on their screens. Researchers such as Lewandowsky et al. (2021) report severe weaknesses in source assessment and lateral reading abilities among digitally advanced university students.

The misinformation landscape has expanded significantly and become conceptually more nuanced over the past decade. The influential typology of Wardle and Derakhshan (2017) identifies three intersecting categories: misinformation, meaning false material disseminated without deliberate harm; disinformation, meaning false information knowingly prepared and transmitted to cause harm or gain advantage; and malinformation, meaning genuine material published with the intent to cause harm, such as confidential information released to damage individuals or institutions. This three-part conceptual framework is currently influential in higher education and policy and forms the basis of the UNESCO Media and Information Literacy Curriculum (UNESCO, 2026). In a previous study analyzing approximately 126,000 news stories, Vosoughi et al. (2018) discovered that fake news spread much farther, faster, more intensely, and more broadly than factual news, with humans—not bots—primarily responsible for this unequal dissemination. Their findings challenged earlier assumptions that automated amplification was the main driver of misinformation virality. Van Huijstee et al. (2022) also established that fact-checking and corrective information are often accurate but incapable of completely correcting false impressions once they have formed. This phenomenon is known as the continued influence effect. The influence of misinformation persists in such a way that even when people recognize information as false, it can still shape their reasoning and behavior (Van Huijstee et al., 2025).

Aryal (2025) situates these dynamics within the Nepali information environment in a global context. Although misinformation itself is not new, the architecture of contemporary misinformation is largely shaped by social media platforms. These platforms are characterized by frictionless content amplification, low-quality content sharing, and networked trust, which have intensified the problem to unprecedented levels. The consequences observed in Nepal include misinformation-driven communal tensions, health-related behavioral distortions during the COVID-19 pandemic, and systematic electoral disinformation.

Theories of media literacy have developed since the 1970s across diverse traditions. According to the National Association for Media Literacy Education (2021), media literacy is defined as the process of accessing, analyzing, evaluating, creating, and acting across all communication modes. This five-part competence framework—access, analyze, evaluate, create, and act—provides a practical competency scaffold applicable to

misinformation-related behaviors such as source verification, fact-checking, and responsible sharing.

The conceptualization of digital and media literacy discussed by Hobbs (2010) is grounded in a set of life skills that include information use and sharing practices, message interpretation through reflexivity, critical reflection on individual media behavior, and social action to promote civic engagement. More importantly, Hobbs positions MIL not as specialized professional expertise but as a foundational framework for full participation in modern democratic society, directly supporting this study's argument for the cross-disciplinary integration of MIL.

Potter (2021) proposes one of the most extensive media literacy taxonomies. He suggests a personal locus to consciously control media exposure, choose what to watch, read, or listen to, and avoid letting the media control our thinking. He highlights knowledge structures, including knowledge about media industries, content, processing, the media world versus reality, and media effects. Potter also discusses skills, suggesting that media literacy involves processing information and reality through cognitive analysis, evaluation, grouping, induction, deduction, and problem-solving. This multidimensional model is especially employed in operationalizing media literacy in survey measures because it produces different independently measurable sub-scales: knowledge, skill, behavior, motivation, and belief (Potter, 2022).

The inoculation theory, first introduced by McGuire in persuasion studies, has recently been applied to misinformation by Lewandowsky and van der Linden (2021). It suggests that exposing people to weaker forms of misleading information, along with clear explanations that refute it, helps them build resistance to future misinformation. This approach, known as prebunking, has been tested through online interventions (Roozenbeek et al., 2020). It shows that effective misinformation education should go beyond simple awareness and instead focus on active, experience-based learning that helps people recognize and challenge false information.

Buckingham (2005) raises a serious objection, warning against purely technical, skills-based media literacy approaches that simplify complex social processes into individual cognitive exercises. He argues in favor of a cultural and political economy perspective that considers media ownership, media institutions, and structural conditions that facilitate misinformation at scale. This perspective is reflected in the Nepali media landscape, where ownership concentration—such as the Kantipur Media Group (KMG), Annapurna News Network (ANN), and a few conglomerates controlling print and broadcast media—creates structural conditions of selective framing that technical literacy skills alone may not adequately address.

Empirical research on students' media literacy competencies has consistently indicated a gap between self-assessed and actual ability. Mathea Simons et al. (2017) noted that effective media education requires that teachers have sufficient media literacy competencies as well as the competencies to promote media literacy in students. McGrew et al. (2017) evaluated 7,804 middle school to university students in the United States and found that participants at all levels were easily deceived by online information, experiencing difficulty with fundamental processes such as differentiating sponsored content from news coverage, evaluating content

quality, assessing social media credibility, and judging website credibility. Breakstone et al. (2021), in a study expanding this research, concluded that even undergraduates at Stanford University performed poorly, demonstrating limited ability to reason about civic online tasks, with most failing to identify webpage funding sources or recognize the partisanship of social media pages.

Ashley et al. (2013) conducted comparative research on the critical analysis of news among journalism and non-journalism students and found that journalism training produced statistically significant gains in source evaluation, motivation to fact-check, and skepticism toward unsupported claims. Craft et al. (2016) discussed the role of journalism education in developing news literacy skills. Their research showed that journalism students became more skeptical of sources and more advanced in assessing news credibility. These outcomes were mainly linked to specific course exposure rather than simple enrollment in journalism programs, subtly implying that curriculum design, not only program affiliation, drives competency development. This observation is particularly relevant in the Nepali context, where the quality and uniformity of journalism programs across university-affiliated colleges remain highly heterogeneous.

Media literacy studies in Nepal are relatively new. The most systematic body of work has appeared in annual media literacy coverage and awareness campaigns conducted by the Centre for Media Research Nepal (CMR Nepal) in collaboration with Media Action Nepal and UNESCO. A study on youth media consumption in Nepal conducted by Thapa (2023) found that only 14% of youths used the internet as a mass media source, while television remained the most used platform at 52%. However, this pattern does not align with college student behavior. As observed and all of the students used the internet as a source of information, and even when consuming television content, they preferred watching online TV. While providing useful baseline information about young people's information behavior, previous studies did not examine the issues addressed in the present research. Existing studies rarely compare journalism and non-journalism students, leaving a significant research gap in the Nepali context.

The wider institutional environment helps build normative structures of responsible media practice, but still lacks adequate implementation mechanisms. One of the most recent and significant challenges is the development of AI-generated content and deepfakes. In Nepal, Tribhuvan University (TU) oversees MIL education in higher learning institutions. TU includes a dedicated media literacy course in the first year of the Bachelor of Arts in Journalism and Mass Communication curriculum, providing students with misinformation-combatting skills. TU has also introduced a separate course titled *Combating Misinformation* in the third semester of the MA in Journalism and Mass Communication program. However, in non-media academic disciplines, media literacy education and skill development for combating misinformation remain limited. Regulatory bodies and laws such as Department of Information and Broadcasting, the National Broadcasting Act (2049 B.S.), Press Council Nepal, and the Federation of Nepali Journalists (FNJ) have introduced measures such as journalistic codes of conduct to curb misinformation. Vaccari and Chadwick (2020) established that exposure to deepfakes generates substantial doubt about the authenticity of

genuine video material, illustrating the "liar's dividend" effect in the Nepali context. Pathak and K.C. (2025) reported that AI-generated political fake news emerged during the election period, highlighting challenges that the current MIL curriculum in Nepal has not yet systematically addressed.

In the Nepali higher education academic context, journalism and mass communication education, as formal educational programs, are considered one of the best ways to develop MIL abilities. However, whether and to what extent such formal education produces measurably greater resistance to misinformation compared to general undergraduate education has not yet received significant scholarly attention. This study addresses this gap through a comparative analysis of journalism students and non-media students in terms of misinformation-combating competencies. Against the backdrop of a rapidly expanding information disorder environment—one increasingly driven by artificial intelligence, software systems, and advanced platform-based algorithmic amplification of deceptive content (Vaccari & Chadwick, 2020)—this study has been conducted.

The main objective of this study is to assess media and information literacy by examining students' confidence and perceived skills in combating misinformation among college students from media and non-media academic backgrounds. To achieve this objective, the study systematically analyzes the current perception and status of media and information literacy among college students, including their awareness, attitudes, and verification behaviors. It seeks to understand how students perceive their own competence and confidence in identifying misinformation, combating its spread, and making responsible information-sharing decisions. Additionally, this paper identifies and explains differences in misinformation-combating competencies between journalism/media students and students from non-media academic backgrounds. Drawing on expert insights, the study also examines the impact of media education on developing misinformation-combating competencies.

This study addresses three fundamental research questions: (1) how college students understand media and information literacy; (2) how media and non-media students perceive and interpret their ability to identify and combat misinformation; and (3) why misinformation-combating competencies differ between journalism students and students from other academic backgrounds.

Methodology

This study employs a qualitative research design. The research was motivated and conducted through observation of competency differences between journalism and non-journalism students based on interactions with students from different academic backgrounds. Focus Group Discussions (FGD) and Key Informant Interviews (KII) were also used as qualitative research methods. Since observation based solely on interpersonal interaction cannot serve as a sufficiently valid method, additional qualitative approaches such as FGDs and KIIs were incorporated to enhance authenticity, interpretation, validation, and expansion of findings. This methodological triangulation strengthens overall interpretation. Observation, FGDs, and KIIs were conducted in parallel to interpret initial qualitative data more effectively and to generate findings, following Creswell and Creswell's (2023) recommendation to triangulate research methods and data sources.

Qualitative observation included day-to-day interactions with college students. The study consisted of two focus group discussions involving five journalism students and five non-journalism students, along with three key informant interviews. The qualitative sample size was determined based on the principle of data saturation, and all participants were selected through purposive sampling, ensuring representation from different provinces of Nepal and diverse academic backgrounds.

The research focuses on college students in Kathmandu. The analysis is based on observational data collected through interactions with participants selected using a homogeneous purposive sampling method (Shaheen et al., 2019). The sample includes Journalism and Mass Communication (JMC) students with media education backgrounds and students from management, science, and technology disciplines representing non-media academic backgrounds. Institutions offering both journalism and non-journalism programs were selected purposively based on the researcher's convenience. Students from bachelor's programs under Tribhuvan University (TU)—including BA JMC, BBS, BSW, BCA, and BSc CSIT—were included as participants. This cross-disciplinary composition of the non-JMC group allowed comparative insights across academic fields. Comparisons were conducted on disciplinary grounds, with non-media students serving as a collective contrast group. Representation of both JMC and non-JMC participants was ensured by including students from different academic years and semesters to capture competency variation based on seniority. Although the sample cannot be generalized broadly, it enables analytical explanation and interpretation of relationships among media education, media literacy, and misinformation-combating competencies.

Three experts for key informant interviews were selected using criterion-based purposive sampling. These informants were chosen because of their professional engagement with media literacy education and misinformation research in Nepal, providing both practitioner-based and institutional perspectives that strengthen the validity and contextual interpretation of the findings.

The qualitative observation framework was organized into five thematic sections: (1) demographic and educational background; (2) media use frequency and purpose; (3) awareness and conceptual familiarity with misinformation, disinformation, and verification tools; (4) verification behavior and confidence levels; and (5) perceived educational impact and attitudinal orientations toward misinformation as a social problem. The interaction questions used for observation were based on validated items from the media literacy scale developed by Potter (2022). The News Literacy Competency Scale, developed by Craft et al. (2016), was also partially applied in conducting this study.

Thematic analysis, following Braun and Clarke (2006), was used to analyze qualitative data generated through focus group discussions and key informant interview transcripts. Thematic analysis was conducted using an inductive approach, in which themes generated through data analysis were cross-compared to obtain a multi-layered, triangulated understanding of the qualitative results.

For the FGDs, two groups were convened: Group A, consisting of five second- and third-year BA in Journalism and Mass Communication students from a college in Kathmandu, and Group B, consisting of five students from non-media disciplines (BCA, BSW, and BBS programs) at the same institution. All FGD sessions were audio-recorded with informed

consent. Discussions were conducted primarily in Nepali, with the use of English terminologies, and were later translated for documentation. Participant names were replaced with coded identifiers (A1–A5 and B1–B5) to maintain confidentiality, and gender (male or female) was indicated using the codes M and F. Each session lasted approximately 90 minutes and was moderated by the researcher with the assistance of an assistant moderator.

For the KII component, three expert informants were selected using criterion-based purposive sampling: Ujjwal Acharya, Research Director at CMR Nepal; Rabi Raj Baral, a fact-checker and misinformation-combating trainer; and Yam Bahadur Dura, a media educator from Madan Bhandari Memorial College. The selection was based on the informants' direct experience in media literacy education and misinformation research in Nepal.

Semi-structured KII interview guides contained four main themes: (1) assessment of existing MIL provisions in Nepal's higher education institutions; (2) disparities in competencies between journalism students and non-journalism majors; (3) strengths and weaknesses of current curricula; and (4) recommendations for MIL policy implementation within academic settings. All interviews were conducted in Nepali with prior informed consent; they were recorded, transcribed, and analyzed using thematic analysis. Ten FGD questions were formulated to explore knowledge and awareness of misinformation, media literacy competencies, critical evaluation skills, the role of education in addressing misinformation, and behavioral responses to online misinformation.

This study is subject to several methodological limitations that must be acknowledged when interpreting the findings. The sample size is limited, as observations were confined to college students selected based on the researcher's convenience, with five participants per FGD group and only two FGDs conducted. The concentration of participants within a small number of colleges in Kathmandu may restrict generalizability across Nepal's diverse provinces and institutions. Reliance on self-reported data may introduce social desirability bias, particularly regarding verification behavior, as students may report more systematic verification practices than they actually perform. As a cross-sectional study, the design captures perceptions at a single point in time and does not assess long-term behavioral change or the sustained impact of journalism education. The study also lacks controlled experimental verification tasks to objectively measure real-time misinformation detection skills. Additionally, emerging challenges such as AI-generated content and deepfakes were explored conceptually but were not extensively tested through practical exposure. Platform-specific misinformation dynamics across Facebook, TikTok, and YouTube were not deeply disaggregated.

In the FGDs specifically, social desirability bias may have influenced responses, particularly in Group A, where journalism students may have felt motivated to demonstrate media literacy competence to an academic researcher. The researcher's own background in media education may also have influenced the framing of questions and interpretation of responses, a reflexive limitation mitigated through transparent documentation of the FGD structure and questions. Despite these limitations, the richness of the qualitative data and the consistency of themes across multiple strands of evidence suggest that the core findings are robust and warrant further investigation through larger-scale qualitative, quantitative or mixed-methods research designs.

Results and Discussion

The external variables examined include media consumption patterns and exposure to MIL training. Baseline data indicate that the media consumption landscape is dominated by social media. Facebook serves as the primary news source for the majority of students, although JMC students appear slightly less dependent on Facebook than non-JMC students. YouTube and TikTok also emerge as prominent platforms for both groups, with somewhat higher usage among non-media students. These media consumption trends reflect the broader social media environment in Nepal and align with global patterns in which social media increasingly replaces conventional news media among young people.

Observation revealed no significant between-group variation in platform use, suggesting that both groups operate within the same media ecosystem and have equal exposure to potentially deceptive content. However, a substantial difference emerges in exposure to formal MIL training. JMC students reported receiving formal media literacy training as part of their academic programs, whereas non-JMC students reported little or no such training. This difference represents a strong effect, indicating that institutional delivery of MIL education remains largely confined to media studies programs, creating a structural inequality that shapes subsequent comparisons of competency.

Misinformation-combating competency appears to be a measurable construct reflected in self-reported perceptions, although such measures remain constrained by social desirability bias and subjective interpretation, which must be considered during analysis and discussion.

Differences in the practical application of knowledge further highlight the competency gap. Nearly all JMC students reported using different verification techniques, whereas fewer than one-third of non-JMC students reported doing so. Similarly, more than half of JMC students reported regularly fact-checking information before sharing it, compared with only about one-third of non-JMC students. While most JMC students indicated that they consistently evaluated source credibility, only about half of non-JMC students reported similar behavior. Notably, in the emerging environment of AI-generated misinformation, more than half of the JMC students reported familiarity with deepfakes, whereas only a small number of non-JMC students demonstrated similar awareness.

In terms of misinformation sharing, more than half of the JMC students claimed that they had never unintentionally shared false information. In contrast, all non-JMC students reported that they had shared false information at times, either knowingly or unknowingly. More alarmingly, non-JMC students admitted to sharing misinformation, and most of them were even unaware of the potential harms and consequences of misinformation. As members of the digital citizenry, this gap in awareness appears significant.

Media Education for Combating Misinformation: Assessment of Impact Perception

Student were directly asked about the educational contribution to their capacity to combat misinformation. Almost all of JMC students reported that they agreed their education had helped them develop these skills, thereby validating the mechanism underlying the difference in competency. Furthermore, both groups acknowledged the gap. All JMC students and more than two-thirds of non-JMC students agreed with the statement that students outside

media programs lack adequate opportunities to develop misinformation-combating competencies. This cross-group acknowledgment strengthens the policy argument for integrating MIL studies across disciplines.

Focus Group Discussion (FGD) Results

Two focus group discussion sessions were conducted, yielding substantial qualitative information across ten themes. The sections below highlight qualitative results obtained by grouping relevant statements from participants of both groups, along with corresponding analysis. Group A comprised BA JMC students, while Group B consisted of students not studying media courses at the BCA, BSW, and BBS levels.

Conceptual Understanding of Misinformation

The most immediately striking distinction between the two groups was the precision and depth of conceptual understanding. Group A participants demonstrated a clear, nuanced, and academically grounded grasp of misinformation typology. They expressed:

> Misinformation to me is when wrong or inaccurate information spreads, but not necessarily with an intention to deceive. The person sharing it might genuinely believe it is true. Disinformation, on the other hand, is deliberately created and shared to mislead people. We studied this distinction in our Media Ethics class. (Participant A1, F).

> We were taught that intent is the key differentiator. Misinformation lacks intent to harm; disinformation carries deliberate malice. And malinformation is something else again—it uses real information but with vested interests. People need to understand these gradations. (Participant A3, F)

> Fake news is a subset within these broader categories. It is a specific type of content, usually news-format content, that is fabricated or heavily manipulated. The problem is that the term has been weaponized by politicians to delegitimize real journalism. (Participant A4, M)

Group B participants, in contrast, demonstrated substantially lower conceptual precision. While they possessed an intuitive understanding that not all online information is reliable, they lacked the theoretical vocabulary to articulate distinctions. Some of the most interesting statements expressed by Group B participants in the FGD were as follows:

> I think misinformation is basically wrong news, like when people share something that turns out not to be true. But I am not very clear about the difference between misinformation and fake news—I thought they were the same thing. (Participant B1, M)

> I have heard the word disinformation, but I am honestly not sure exactly what makes it different from misinformation. Maybe disinformation is more deliberate? But I am not confident. (Participant B3, M)

This conceptual gap is analytically significant: students who cannot precisely define the phenomena they encounter are correspondingly less equipped to recognize and respond to them effectively.

Practical Verification Skills and Tools

The most pronounced competency gap between the two groups lay in verification practices. Group A participants routinely employed specific digital tools and systematic verification protocols. They stated:

> I use tools like NepalFactCheck.org, Google Reverse Image Search, and multiple media information cross-verification techniques quite regularly now. It has become a

habit since we were introduced to digital verification tools in our media literacy class. (Participant A5, F)

During the recent Gen Z strike and movement, many images were circulating on Facebook that were actually from older events in other countries. I could tell because the background and road markings were different from Nepal. I flagged it for my friends and posted a correction with authentic sources. (Participant A1, F)

I encountered a viral video clip on TikTok during the last election claiming that a prominent politician had unethical relationship with someone. It turned out to be heavily edited. I used video analysis skill, just watching carefully to the edit cuts, and cross-checked with authentic news. Content in our course on information verification helped me notice the unnatural breaks in the video. (Participant A2, M)

Group B relied predominantly on surface heuristics—virality as a proxy for credibility, brand recognition, and emotional tone—with no mention of specific verification tools as they told:

If a lot of people are sharing something, I usually assume it must have some truth to it. If it was completely fake, someone would have corrected it by now. (Participant B1, M)

I trust pages that have a lot of followers and a blue verification badge. I also check whether several different news outlets are saying the same thing. (Participant B2, F)

B1's explicit use of virality as a credibility heuristic is particularly concerning, as viral spread is one of the primary amplification mechanisms for misinformation—the precise opposite of a reliable indicator of credibility.

Source Evaluation

For Group A, institutional factors played a role in their source evaluation, including press council records, policies for corrections, analyses of ownership and political economy, credibility of domains, and external source evaluation tools. Social proof, brand recognition, and verification badges were used by Group B.

Systems-level analytical skills in relation to the structural conditions of the Nepali media industry were also evident in the responses provided by members of Group A:

Ownership of most media houses by politicians is another serious issue. Media are usually owned by political parties or vested interests. I usually make sure to identify the ownership of a medium before believing its content. (Participant A3, F)

In Nepal, even respectable media sometimes use information from social networking sites as their source. Their motive seems to be first before others. (Participant A4, M)

However, Group B had some structural understandings, such as echo chambers, although these were not based on systems-level analysis like the one provided through journalism education.

Ethical Considerations and Response Behaviors

In instances where participants recounted occasions when they had unintentionally spread misinformation, it became clear how large the behavioural gap was. The main behaviour in Group A related to spreading misinformation was public correction due to normative adherence to journalistic principles:

I once reposted something about some kind of controversy involving a celebrity. It turned out to be completely wrong, and I

> immediately deleted it and made a public statement about my error. (Participant A2, M)

The main behaviors of Group B consisted of doing nothing, silently deleting posts, or correcting themselves privately. Participants from Group B explicitly acknowledged the absence of correction 'know-how' among members. They expressed:

> I once shared a post on Facebook warning people that eating radish at night and eating honey on an empty stomach would cause harm and even death. I realized it was incorrect and just deleted it since I didn't know what else to do. I feel really guilty, but I couldn't correct myself publicly. (Participant B3, M)

> How do you actually correct? I've never heard anyone talk about how to go about doing it, to be honest with you. The easiest thing is to delete it immediately when we know the wrong thing is posted. Why wait, and why worry about correcting? (Participant B4, F)

Political Economy of Social Media

Social media platforms emerged as the key news ecosystem for both groups. Facebook reigned supreme, followed by TikTok and YouTube. Group A revealed an understanding of platform dynamics at a systems level and told:

> The business model of the platform is such that it encourages engagement rather than correctness. Content that elicits emotions or sensationalizes information will receive more clicks and shares. That is simply part of its design. (Participant A4, M)

> Then there is the issue that misinformation in Nepali languages is less actively moderated compared to content in English. This makes the spread of misinformation easier. (Participant A5, F)

While Group B recognized the role of algorithms in shaping the feed, they were unable to provide a systemic account:

> Yes, I do know that Facebook presents only what I already agree with, but how it does that, I am still unsure. Maybe it is based on what I click on? (Participant B2, F)

Recommendations from Both Groups

Surprisingly, both groups came up with similar policy recommendations, although their levels of competency were very different. There appeared to be regret among students from Group B regarding their lack of media and information literacy. They wished they had been taught these skills earlier. "It's like we have been using the Internet for a long time but never knew, and did not want to know, why and how to verify whatever we read," participants in Group B regretted.

The following are some of the policy recommendations made by both groups including mandatory media literacy education in schools and universities, teacher training, a national-level framework, community engagement, and an independent media verification system:

> Media literacy education must be mandatory in schools—not optional but necessary. Every person must have these skills regardless of their science, commerce, or arts field of study, as each individual is involved in consuming and disseminating information through the Internet, they stated.

Presentation and Analysis of KII

KII data from all three expert informants converged on four major themes:

- The inadequacy of current MIL provision in non-media disciplines.
- The role of practice-based learning in building durable competencies.
- The inadequacy of current curricula in addressing AI-generated content; and
- The need for an integrated, multi-stakeholder approach to MIL education.

Acharya (KII, 2026) emphasized that CMR Nepal outreach programs consistently find that young people in non-media disciplines are among the most vulnerable populations for misinformation exposure, partly because their academic programs provide no structured framework for evaluating information quality. He noted that journalism students, even those from programs with relatively weak practical training, have been exposed to the conceptual vocabulary and normative commitments—source verification, editorial standards, and multi-source corroboration—that serve as cognitive anchors when encountering questionable content.

Baral (KII, 2026), drawing on his fact-checking training experience, highlighted a behavioral paradox consistent with the quantitative findings on active responses. He noted that even competent students often do not act on their detection of misinformation in public digital spaces because of social disincentives, fear of conflict, reluctance to challenge peers, and the path of least resistance represented by passive scrolling. This finding resonates with Mihailidis and Viotty's (2017) concept of media as performance and suggests that MIL interventions must address social and motivational dimensions alongside cognitive competencies.

Dura (KII, 2026) agreed regarding the significant guiding and contributory role of Journalism and Mass Communication education in resisting the spread of misinformation. He further emphasized the need for timely updating of journalism and media studies courses and for making syllabi richer through skill-based media literacy practices. He also added that media education is necessary for all students, from school to college and university levels.

Formal Media Education as the Primary Driver of Competency Differences

The clearest result of the present study is the unambiguous demonstration that formal education in journalism and mass communication is associated with significantly higher levels of misinformation-combatting competency than general undergraduate education in the present Nepali educational system. This result is consistent with the existing comparative literature (Ashley et al., 2013; Craft et al., 2016) and indicates that the assumption underlying the MIL education imperative has been substantiated with actual Nepali data rather than being based purely on theory.

The strength of the result, consistently in the very large range across all dimensions, is greater than that found in comparable studies from the West and is likely due to the complete absence of MIL education in non-media disciplines in Nepal, where no equivalent of general "news literacy" or "information literacy" education exists in most fields of study. In Classes 11 and 12 under the National Examination Board, Nepali students study Social Studies and Life Skills Education, in which they learn communication skills and basic Internet and social media usage. However, these courses do not teach specific knowledge or techniques for combating misinformation.

A noteworthy developmental detail in the results is that early observations and interactions did not indicate any significant difference in JMC

students' competency compared with others. The expected difference became apparent only when BA third- and fourth-year journalism students were included in the interactions.

This may indicate that the cumulative and longitudinal effects of educational experience—that is, repeated exposure to fact-checking norms, editorial processes, and source-critical analysis across numerous courses—play a significant role in competency development rather than any single course or exposure. This finding aligns with Craft et al. (2016), who found that course exposure, not program enrollment per se, is the critical factor in developing the desired competency, suggesting that workshops alone are unlikely to produce the profound behavioral changes achieved through formal education.

Equally notable is the finding that BCA and BSc CSIT students, as participants in technical computing programs, may perform better than JMC freshmen in their early years on specific technical verification skills such as reverse image searches and URL analysis, consistent with their technical competence (Acharya, Baral, & Dura, 2026). The implication is that there is scope for cross-disciplinary collaboration, whereby technical students could contribute digital forensic skills that may be absent from MIL courses for JMC students.

Implications of the Competence–Confidence Mismatch

The competence–confidence mismatch identified among the non-JMC group—where moderate confidence existed without corresponding competence—is perhaps the study's most policy-relevant finding. Studies by Breakstone et al. (2021) and Lewandowsky and van der Linden (2021) have established that such mismatches are characteristic of populations with low prior exposure to MIL, where the absence of standards defining expert performance makes accurate self-assessment difficult. The implication is that students who believe they can identify misinformation may be less receptive to corrective teaching.

From a democratic theory perspective, the competence–confidence mismatch represents a specific form of civic vulnerability. McKay and Tenove (2021) argue that the most damaging effects of disinformation on democracy are not those involving conversion—changing people's political beliefs—but rather those involving the "pollution" of the epistemic commons through which citizens make sense of political reality. A citizenry that is confidently incorrect and therefore not actively seeking accurate information becomes particularly susceptible to this pollution effect. In this study, two third of non-JMC students reported that they had shared false information or were unsure whether they had done so, quantifying this susceptibility in Nepal for the first time.

Dimensions of Verification Behavior

A significant finding is that verification behavior is not purely a function of competency. Less than half of JMC students reported always verifying information before sharing, despite scoring highly in competency assessments. Qualitative findings from both FGDs and KIIs suggest that this pattern is attributable to social dynamics, entertainment motivations, and social network trust heuristics.

Baral (KII, 2026) highlighted a behavioral paradox: even competent students often do not act upon detecting misinformation in public digital spaces because of social disincentives, fear of conflict, reluctance to challenge peers, and the path of least resistance offered by passive scrolling.

Vosoughi et al. (2018) provide a theoretical explanation: novelty and emotional resonance are stronger drivers of viral information spread than accuracy or credibility. If novelty and emotional resonance consistently outweigh accuracy as motivations, even competent students may sometimes share misinformation for entertainment purposes. This pattern was observed in the FGD data, where Group A participants acknowledged occasionally sharing misinformation because it was "fun" or "entertaining," even when they recognized its questionable nature. MIL education that does not address these social and motivational dimensions is therefore likely to produce awareness without corresponding behavioral change—a pattern well documented in health communication research (Roozenbeek et al., 2020).

Structural and Institutional Factors

It is clear from the findings that Nepal's higher education system does not produce citizens with equal abilities to operate responsibly within the information environment. Such inequality is not born out of individual differences but stems from institutional factors. While the curricula of higher education programs focused on media topics incorporate MIL skills, there are no programs designed to develop such skills within non-media curricula. This results in students from non-media fields lacking the MIL knowledge that would enable them to critically evaluate content. As Acharya (KII, 2026) noted, CMR Nepal's outreach programs have repeatedly found that students majoring in non-media fields are among the most vulnerable groups to misinformation due to the lack of an appropriate framework for information evaluation within their educational process.

The qualitative data gathered through interactional observations and systematic methods of both Focus Group Discussions and Key Informant Interviews consistently indicated that there is no national fact-checking institution in place in Nepal, and there are no mechanisms for media credibility assessment in the Nepali language. In this regard, all student groups mentioned the need for the development of such institutions.

At the same time, the study identifies important complexities. Early-year journalism students do not necessarily outperform technically trained peers on specific digital verification skills. Verification behavior is partly decoupled from competency through social and motivational factors. And, a competence–confidence mismatch among non-JMC students constitutes a specific form of civic vulnerability that poses challenges for educational intervention. Emerging threats—AI-generated content, deepfakes, and algorithmic amplification—are inadequately addressed in current curricula across both groups.

The findings confirm that Nepal's higher education system currently produces citizens with highly uneven capacities to navigate the information ecosystem responsibly. This inequality is not a natural product of differential interest or ability but of institutional provision. The curricula of non-media programs simply do not include MIL content, leaving students without the conceptual vocabulary, practical skills, or habitual behaviors required for fact-checking and responsible sharing. Addressing this structural inequality is therefore not merely an academic or curricular matter but a democratic imperative.

Conclusion

This study provides empirical comparative evidence in Nepal demonstrating that formal journalism and mass communication education

is significantly associated with higher misinformation-combating competency than general undergraduate education. Drawing on observational data, individual interactions with students, Focus Group Discussions comprising ten participants, and Key Informant Interviews with leading media literacy experts, the study builds a rich, triangulated picture of the competency landscape in Kathmandu's higher education institutions.

The evidence is consistent and compelling across all methods and competency dimensions. Journalism students demonstrate superior conceptual precision in defining and distinguishing categories of information disorder; employ more diverse and technically sophisticated verification tools; engage in more systematic source evaluation incorporating political economy and ownership analysis; and demonstrate stronger internalized norms of public correction when they encounter or share misinformation. Non-media students, in contrast, rely predominantly on surface heuristics—virality, brand recognition, and social proof—and lack both the conceptual vocabulary and the practical toolkit required for effective misinformation combating.

The study also reveals important complexities that nuance this central finding. Early-year technical computing students may outperform JMC freshmen on specific digital verification tasks, suggesting scope for productive cross-disciplinary collaboration. Verification behavior is partly decoupled from competency through social and motivational dynamics that MIL interventions must explicitly address. Additionally, the competence–confidence mismatch among non-JMC students represents a particularly challenging form of civic vulnerability and poses challenges for digital democracy.

Journalism students narrate a coherent story of education-driven competency development. They learned specific tools, encountered real cases within their curricula, and internalized journalistic norms of accountability that translate into active verification behavior. Non-media students narrate a story of intuitive, informal, and inconsistent engagement with misinformation—well-intentioned but structurally under-supported.

The convergence across both student groups in calling for systematic, cross-disciplinary media literacy education—despite their very different levels of competency—signals strong social readiness for policy intervention. The question is no longer whether Nepal needs comprehensive media literacy education across all fields of study; the question is how quickly it can be implemented. In a democracy where citizens require these skills regardless of academic discipline, delayed action is not a neutral choice; it is a decision to leave the next generation of digital citizens structurally unprepared to navigate the information environment upon which democratic discourse depends.

Based on the above-mentioned findings, discussion, and conclusions, the following recommendations are suggested for developing misinformation-combating competency not only among college students but across society as a whole.

Recommendation

MIL Curriculum Integration

Media and information literacy development should be incorporated as a compulsory component of undergraduate education standards

across all disciplines of higher education in Nepal. Similar to mandatory subjects such as language, social studies, and computer skills, MIL courses covering conceptual frameworks, platform literacy, and verification tools should be required for all undergraduate students. Students should also be mandated to observe responsible information-sharing norms irrespective of their academic program. In this regard, the University Grants Commission (UGC) Nepal and the academic councils of universities ought to initiate an official curriculum review process.

Faculty Development

The application of MIL across disciplines necessitates that faculty beyond journalism programs acquire both thematic and pedagogical competence in MIL. A structured faculty development program—developed in collaboration with TU CDJMC, CMR Nepal, and Media Action Nepal—should train non-media teachers to integrate MIL competencies into their instruction. This approach mirrors successful models used in Scandinavian countries, where MIL is regarded as a cross-curricular competency embedded within subject-specific instruction (Frau-Meigs et al., 2017).

Practice-Centered Pedagogy of Verification

KII results and competency data both indicate the central importance of practice-based learning. MIL training emphasizing verification activities such as reverse image searches, source triangulation, lateral reading, and platform-specific fact-checking tools produces stronger competencies than abstract or lecture-based approaches (Wineburg & McGrew, 2019). Nepali university journalism programs should prioritize practical skill-building within MIL modules, while new MIL courses in non-media disciplines should adopt active learning pedagogies from the outset.

Dealing With Synthetic Content

Existing MIL programs need urgent revision to address AI-generated content, synthetic media, and deepfakes. Given the growing presence of such content within Nepal's political information environment, this is not a future concern but an immediate necessity. Practitioner networks and existing research institutions such as CMR Nepal and Media Action Nepal should be mobilized to develop Nepal-specific training materials on synthetic media detection and critical engagement with AI-generated content.

Social Integration for Multi-Stakeholder Efforts

Combating misinformation cannot be achieved through education alone. The findings of this research, supported by existing literature, suggest the need for structured frameworks and multi-stakeholder strategies to address information disorder. To promote a well-informed citizenry and encourage algorithmic transparency, stakeholders across society—including government institutions, legal bodies, academic institutions, NGOs, INGOs, security organizations, and individual citizens—should be educated about the negative consequences of mis- and disinformation and work collaboratively to develop competencies for combating misinformation. Media regulatory bodies should play a more active role by mobilizing stakeholders toward the structural transformation of the information ecosystem. Institutional and regulatory intervention is therefore essential.

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