

Journalists of Tomorrow: Are You Ready? A Study Beyond Application (Media information literacy and detection of fake news)

**صحفيو المستقبل: هل أنتم مستعدون؟ دراسة تتجاوز
التطبيق (التربية الإعلامية واكتشاف الأخبار الكاذبة)**

د. إيمان عصام مصطفى محمد

**مدرس الإعلام بكلية اللغة والإعلام بالأكاديمية العربية للعلوم
والتكنولوجيا والنقل البحري**

ملخص الدراسة

تهدف هذه الدراسة إلى تحديد دور مواد التربية الإعلامية في إكساب طلاب كليات الإعلام في مصر المهارات اللازمة لاكتشاف الأخبار الكاذبة عبر وسائل التواصل الاجتماعي. تم تصميم دراسة شبه تجريبية على عينة قصدية من 125 مبحوثاً لكل من المجموعة التجريبية والمجموعة الضابطة.

توصلت الدراسة إلى أن دراسة مواد التربية الإعلامية ساعدت المبحوثين في الكشف عن الأخبار الكاذبة. ومع ذلك، كان إدراك المبحوثين لقدرتهم على التحقق والكشف عن زيف الأخبار أعلي من قدرتهم الفعلية من اكتشاف الأخبار الكاذبة.

الكلمات المفتاحية:

التربية الإعلامية- الأخبار الكاذبة- المقروئية لدي الصحفيين المصريين

Abstract

This study focuses on the role studying media and information literacy (MIL) has in acquiring skills for media college students in Egypt on their recognition of fake news on social media. A nonequivalent quasi experimental study was structured on a non-random purposive sample of 125 respondents of both a treatment and a control group were selected. The study found that studying MIL course was helpful in assisting respondents in detecting fake news. However, respondents' ability to recognize fake news was relatively low where respondents' perceived ability to detect fake news was less than their actual performance.

Keywords:

Media Information Literacy -fake News - Readiness of Egyptian journalists

1. Introduction

It is a global phenomenon that the majority of journalists rely on social media, particularly Facebook, to report their stories. This has several drawbacks, including diminishing the journalist's ability to look for news from primary sources, lowering the believability of news sources, and spreading fake news.

Research have shown that a variety of factors, including media MIL, influence the role of spotting fake news, through fostering critical thinking and information verification skills.

Notably in Egypt, this has the ability to develop responsible and accurate reporting, so contributing to a more informed society with future content providers and journalists.

Consequently, this study focuses on the role of studying MIL in acquiring required skills for media college students in Egypt on their recognition of fake news on social media.

The study's findings can help Egyptian educational institutions build guidelines and techniques for comprehensive MIL instruction at all levels of education. Furthermore, specialized study in Egypt provides unique insights into the country's context, with findings that may have broader significance to other nations.

2. Research problem

The quick spread of fake news has provided a breeding ground for its rapid growth, leading in serious consequences such as societal division, degradation of public trust, and even threats to democratic processes.

Media college students play a vital role in shaping public discourse. As a result, it is vital to examine how their exposure to MIL education can improve their skill, with the goal of creating a more educated and resilient media landscape in Egypt.

3. Significance of the study

The following points identify the significance of the study as follows

1. Educational institutions can establish successful techniques to improve students' critical thinking and information verification abilities, by examining the impact of MIL.
2. Giving students good MIL skills can lead to more responsible and accurate reporting, resulting in a more informed society as future content providers and journalists.
3. The outcomes of this study can help Egyptian educational institutions develop guidelines and strategies to promote MIL instruction at all levels of school.

4. Literature Review

The literature review entails two themes, the Levels of MIL among social media users', especially students, and exploring social media users and their capabilities in detecting fake news.

4.1. MIL skills of social media users

A number of studies have looked at various facets of media and digital literacy. When measuring digital literacy in people with low digital competence, Ali and Ayoub (2022) discovered that demographic variables including gender, age, income, and education can function as roadblocks to learning digital literacy. After a thorough examination of research publications released between 2000 and 2020, Audrlin (2022) defined the essential components of MIL and emphasized the role that studies play in advancing digital literacy outside of the classroom.

In their investigation of the function of digital literacy in social media communication, Arafah and Hasyim (2022) discovered that Facebook, WhatsApp, YouTube, X, and TikTok were the main information sources. They emphasized how crucial digital literacy is for evaluating content on social media. The function of media, information, news, and digital literacy in identifying false information was investigated by Jang and Jinjing (2021). According to their poll, spotting fake news required a high level of information literacy.

An educational curriculum for media and digital literacy in Upper Egypt was developed by Abu EL-Ezz and Fayez (2021), who demonstrated how critical thinking and problem-solving abilities may develop over time. In 2020, Badr evaluated the digital literacy of Egyptian media college students and emphasized the difficulties in switching to remote learning during the epidemic.

When Rady (2014) compared the news literacy levels of graduate and undergraduate students, she found disparities in political awareness but not in news processing or news media information literacy. Sayed (2019) examined the MIL behaviors of Facebook users, emphasizing how well they applied analytical abilities to information evaluation. El Ghetany (2017) highlighted the benefits of teaching MIL in schools by examining the difficulties Egyptian teachers had when putting MIL programs into practice.

4.2. Social media users and fake news

These studies look at the reasons behind spreading false information, the quality of sources, and the function of digital literacy in identifying false information. According to Al Zou'bi (2022), pupils' capacity to identify false information was enhanced by media and information literacy (MIL) instruction.

During the Covid-19 pandemic, Apukea and Omara (2021) found that socialization, peer pressure, and information sharing are among the elements that lead to the spread of bogus news. Kim, Moravec, and Dennis (2019) found that consumers' actions regarding bogus news were significantly influenced by believability and confirmation bias, and that people were less critical with time. Ibrahim (2019) looked at how exposure to fake news affected young people's political concern in Egypt, emphasizing how dangerous false news is when it comes to propagating lies and rumors.

According to Bahnsy's (2019) research, digital literacy can enhance critical thinking skills and the capacity to identify false information on social media. Skills in content creation did not correlate with fake news.

The following notes should be taken into consideration after reviewing previous literature:

1-Uses and gratification theory, which explains why people follow news on social media and get satisfaction from sharing and commenting on news among friends and peers, was the main theoretical framework utilized in examining aspects that affect the detection of fake news.

2- Quasi experimental design was the primary method used by the majority of studies that either attempted to identify social media users' proficiency in identifying fake news or evaluated users' proficiency in relevance to news, digital, or MIL due to its high

degree of control over study variables that aid in hypothesis testing under more efficient and controlled conditions.

3- Studies claimed that learning media, news, or digital literacies had a positive effect on social media users because it improved their ability to assess and analyse information.

4- Studies showed the effect of believability in users' role in sharing and commenting on news. Certain factors affected users' believability of news, which are:

- Studying news, digital or MIL.
- Political beliefs

5- Certain intermediate variables affected users in spotting fake news as:

- a) Studying news, digital, or MIL
- b) Demographic features especially (age, education, and ownership of educational institutions)

5. Theoretical Framework

The study is based on a thorough framework that assembles both the message interpretation process model (MIP) and the audience's acts of authentication theory.

5.1 *The message interpretation process model (MIP)*

The message interpretation process model (MIP) emphasizes how important to critically analyses, assess media message to accept or reject it. The model aims to reduce the perceived realism, similarity,

and desirability of unhealthy media messages (Austin and Meili 1994).

Consequently, it is suggested that users' capacity for critical evaluation and consequent skepticism could minimize the influence of media on consumers lessening the persuasive effect of media (Austin and Johnson 1997).

Intentions to engage in unhealthy behavior are likely to be lower if media messages that promote unhealthy behavior are perceived as unrealistic depictions of social reality, different from and unreflective of one's experiences of reality, and if expectations of positive outcomes associated with the behaviors that the media messages promote are low (Apuke, Omar, and Tunca 2022).

The idea of immunization provides a useful justification for MIL programmes. By teaching individuals how to resist or critically evaluate fake news reports. for instance, MIL education enables people to become "immunized" against any detrimental impacts of fake news (Scull and Kupersmidt 2014).

5.2 Audience's acts of authentication

An individual's initial interaction with news on social media is referred to as internal acts of authentication. The conceptual framework contends that people often engage in a two-step authentication process: internal authentication, followed by external authentication.

Step 1: internal authentication actions

This is the first time a person has encountered a news story on social media. The evaluation of believability and this level are both very comparable. People in this first interaction rely on the self, the source, and the message as their three key sources of authentication. (Chen, Duckworth, and Chaiken 1999).

Step 2: Acts of (external) authentication by audiences

If after reading the person is still unsure of the accuracy of the material, he moves on to the next step, which entails doing external acts of authentication.

This involves cross-checking with either personal or institutional sources (Tandoc El al 2018). This procedure may be accidental or deliberate as follows:

- Incidental and interpersonal: through asking and double-checking information with friends, experts, and family members.
- Institutional: through searching for verification from trustworthy news sources (Schifferes El. Al, 2014).

The theoretical framework may be useful for research into:

- 1- Determining how studying MIL affects consumers' capacity to recognize fake news.
2. Establishing the function of internal authentication criteria, such as oneself, the source, and the message, in evaluating the veracity of news.
3. Determining how institutions and news tone play a part in external authentication criteria that help determine the veracity of news.

6. Research Design

6.1 Research objective, questions and hypothesis

This study focuses on the role of studying MIL in acquiring required skills for media college students in Egypt on their recognition of fake news on social media.

Consequently, the study proposes the following questions

a) *Dependency on news sources:*

- RQ1. What are the main on-line news sources respondents depending on?
- RQ2. To what extent respondents rely on social media as a news source?

b) *Effectiveness of studying MIL in spotting fake news:*

- RQ3. How respondents evaluate the usefulness of studying MIL?
- RQ4. How respondents assess their skills in detecting fake news?

c) *Assessing news believability:*

- RQ5. How respondents assess news believability on social media?
- RQ6. How respondents check news reliability of news posted via social media?

- RQ7. What are the reasons for respondents assessment of social media news believability?

d) Respondents capabilities in assessing news credibility:

- RQ8. What is the difference between respondents assessment of their skills in spotting fake news and real application?
- RQ9. How internal authentication help respondents in spotting fake news?
- RQ10. How external authentication help respondents in detecting fake news?

6.2 Research hypothesis

The possible impact of MIL on users suggests the following research hypotheses:

Hypothesis (1). There are statistically significant differences between students who studied MIL and those who didn't study the course in their ability to detect fake news.

Hypothesis (2). There are statistically significant differences in students' ability to detect fake news based on the hours of social media usage.

Hypothesis (3). There are statistically significant differences between the type of education, whether public or private, and students' ability to detect fake news.

Hypothesis (4). There are statistically significant differences between studying the study sample of MIL and the believability in news produced by media institutions and news produced by social media users.

6.3 Method

This study is based on a quasi -experimental study. Quasi experimental design is defined as “research employed aims to establish a cause and effect relationship between an independent and dependent variable where subjects are assigned to groups based on non-random criteria ” (El Ghetany 2017). Nonequivalent groups design was used. It is defined as “a quasi-experimental study in which the responses of a treatment group and a control group are compared on measures collected at the beginning and end of the research ” (El Ghetany 2017).

6.3.1. Method design:

Nonequivalent groups were structured on two groups, a treatment and a control. The following criteria were unified in both groups as follows:

- **Population:** the study targets Egyptian media school senior students. Population aims at assessing the effectiveness of studying MIL on targeted population in assessing the believability of news disseminated via social media.
- **Sampling:** a non-random purposive sample of 125 students was selected.

The sample was taken from the following universities, listed alphabetically:

- Ahram Canadian University
- Arab Academy for Science, Technology and Maritime Transport

- Beni Seif University
- Cairo University
- Modern University for Technology and Information
- October University for Modern Sciences and Arts
- Ain Shams University

The purposive sample was established based on the following criteria:

- Gender
- Senior media school students: they were chosen based on their comprehensive understanding of assessing media content, as they possess accumulated knowledge in this area. By selecting these students, researcher aimed to observe the impact of studying MIL or related courses on their ability to evaluate media content effectively.

Due to the nature and tailored settings of used method, each group was categorized to two groups respectively

- Having internet access and possessing basic digital skills, such as internet search and social media network usage.
- Diverse ownership of media schools
- Varied levels of social media usage and dependency on the internet in general, as well as on social media as a specific news source.

7. Results

As for the Characteristics of the quasi –experimental study sample, results showed the following:

- Females make up 70.4% of the study sample, while males make up 29.6%.
- Respondents were distributed equally between treatment and control group. 52.8% of the study population has studied the MIL or relevant courses, whereas 47.2% has not.

- Private schools accounts for 69.6% of the study group, while governmental schools accounts for 30.4%.
- Results showed that 60% of the study sample uses the internet for five hours or more daily. In contrast, 32% of the study sample used the internet for 3 to less than 5 hours, while 8% of the study sample uses it for less than 3 hours daily.

7.1. Study measurements:

MIL skills: seven main skills are embedded in MIL; the following were chosen because of their applicability to the study:

- a) Analysis skills: the capacity to differentiate between authentic and false information in news articles.
- b) Evaluation skills: the capacity to link numerous pieces of information inside a single news item and judge the veracity of news content such as text and images.
- c) Communication and usage skills: publishing and sharing activities that are pertinent to news posted on social media.

7.2. Method: Surveys:

- Two surveys were administered on research groups. Survey is defined as “a quantitative research method used to collect numerical data that leads to statistical analysis “(El Ghetany, 2017).
- The first one was administered at a pre-test stage then respondents were exposed to news between fake and real ones, then a post – test survey was administered.

7.2.1. *Pre-test survey*: is a set of 11 questions measuring the basic MIL skills as follows:

- Questions from (3) to (6): measure respondents’ accessibility to social media and dependency on it as a news source.
- Questions, (4) to (7), and 11(1): measure respondents evaluation of MIL and relevant courses, as well as the importance of

educational methods which help students spot fake news.- Questions (8), (9), and 11(6): measure respondents ways in assessing news credibility.

- Questions 11 (2), (3), (4), (5), and (7): measure respondents evaluation of the importance of various news sources, and judgment of news sources posted on social media

- Question (9): measure respondents' capabilities in creating credible pieces of news.

- Questions (1), 11(8) : measure respondents engagement in disseminating news on social media.

7.2.2. *News samples*: Five news samples were presented to respondents. The news was chosen and ranged from real to fake news as follows:

- News is delivered in Arabic.
- Egyptian current events-related news was chosen.
- Economic events, accidents, and discoveries related to various fields were covered.
- A variety of Egyptian and international sources were chosen. Institutional and user-generated news were also taken into consideration.

7.2.3. *Post-test survey*: is a set of (12) questions measuring respondents' acquisition of basic MIL skills as follows:

- Question (1) till (10) : measure respondents capabilities in spotting fake news
- Questions (11), & (12): measure respondents act regardless presented news either fake or real.
- Reliability Procedures: The researcher aimed to minimize variances as much as possible by controlling the elements that caused them at each stage of the investigation.

The researcher administered a reliability test to the study sample, yielding an 85.6% result. This result indicates the

questionnaire's stability and usefulness for application and generalization of results.

- **Validity Procedures:** The data (questionnaire) was provided to a group of experts and specialists in research methodologies, media, and statistics to ensure the validity of the survey instrument*

7.3. Operational definitions:

- **MIL course:** any course that intend students' acquiring basic skills of accessing, retrieval, understanding, usage, analysis, creation, and evaluation of news.
- **Fake news:** include fabricated news topics or real news that embed false information.

8. Discussion

The study results and findings present survey responses in relevance to the four categories of research questions, as well as testing the research hypothesis.

8.1. Answering research questions

a) *Questions about Dependency on news sources:*

According to the findings, 92.8% of the sample relied on social media as their primary source of news, with 32% relying on online newspapers and news apps.

Social media were far ahead of other electronic sources since it blends individual connection with interaction with institutional pages of any kind. This suggests that these sites are distinguished by their ease of publication and quick access to the target audience, as well as the ability to enable two-way contact between the sender and the receiver.

As for the types of news sources used by the study sample. With a weight of 81.2 degrees, the sample affirmed that they get the majority of their news exclusively from social media. Following

that, with a weight of 79.6 degrees, they get news from numerous sources.

b) Effectiveness of studying MIL in spotting fake news

Regarding respondents' evaluation of the usefulness of studying MIL. Approximately 47% of the survey sample confirmed that it is effective in learning the skill to recognize fake news, with 42.4% finding it extremely useful. Meanwhile, 9.1% of the study sample was unable to assess the value of this subject, while only 1.5% thought media education was ineffective.

Study results showed respondents' reasons for the benefits of studying MIL. Approximately 69.7% of respondents agreed that this course helped them understand how the media operates. Following that, 16.7% of the study's participants deemed it effective in supporting them with media content development. 7.6% of the survey sample sees no practical use for the subject, while 6% of respondents felt that media education reinforces knowledge gained in other media-related disciplines.

Study results also showed the practical applications used during respondents' MIL studies. Practical assignments is at the forefront, with 75.8% of the respondents. Checking news sources were ranked second, as reported by 57.6% of respondents. In third place, 27.3% of the study sample said they used the content for news writing.

As for respondents' assessment of their skills in detecting fake news. With a weight of 77 points, the study sample believed they can identify various news types published on social media. They also believed they can estimate the potential effects of spreading false news with a weight of 73.8 points. In terms of the participants' ability to assess their skill in detecting fake news, the majority of the participants, with a percentage of 32%, confirmed that they can detect fake news on social media.

c) Assessing news believability

Regarding respondents' assessment of news believability on social media, with a weight of 67 points, respondents indicated trust in the news published on social media by media institutions. Then, with a weight of 59.2 points, they demonstrated trust in social media news generated by social media users.

Regarding study sample validates news credibility. The most popular strategy was to verify trustworthiness by exposing themselves to numerous sources, which was employed by 67.2% of the study sample. The second most prevalent method, utilized by 66.4% of the survey population, was verification through credible news websites. In third place is using search engines to confirm news, which is used by 40.8% of the sample. Following that is verification through media organizations (39.2%), followed by personal experience verification 25.6%. Seeking input from older family members interested in the news was utilized by 21.6% of the sample, while asking acquaintances and coworkers was used by 20.8%. Finally, 15.2% of the study participants stated that they are unconcerned about checking news believability.

Respondents found that social media has aided in the spread of fake news. This was rated as 86.8 points by the study sample. Though, the study sample believed that social media was a source of informational enrichment in the news field, with a weight of 81 points. Additionally, results showed that 67.2% of the study sample assessed the importance of news distribution through social media as very important, while 32.8% rated it as ordinary.

d) *Respondents capabilities in assessing news believability*

Results showed that 40.8% of the study sample, has a low grade for the detection of fake news. In second place, 35.2% of the survey sample had high rate of detection. Finally, 24% of the survey participants assigned a medium rating.

Study results explained respondents' assessments on the reasons for concluding that the second and fourth news articles were fake news.

As for the second piece of news, the justifications "from my experience, the news appeared illogical" and "The headline of the news is inconsistent with the content," reported by 73.7% of the study sample for both. Following that, 68.4% of the survey sample gave the reasons "The news source is unreliable" and "The news has an unknown source" for both reasons.

As for the fourth news article's, study sample was evaluated and tested for falsity. The justifications "The source of the news is untrustworthy" and "from my experience, the news appears illogical" were mentioned by 59.3% of the study sample for both. The explanation "The source of the news is unknown" was given by 49.2% of the survey sample in second place.

Study results showed the sample has a low rating for the detection of fake news of 40.8%, followed by a high rating of 35.2%. The average rating from the study sample is 24% in the third position.

8.2. Testing research hypothesis

This section tests the hypotheses proposed by the researcher regarding the possible impact of MIL on users

Hypothesis (1). There are statistically significant differences between students who studied MIL and those who didn't study the course in their ability to detect fake news.

Testing first hypothesis showed the presence of statistically significant differences between students who studied MIL as they were better able to detect fake news than those who did not, as determined by the (t)-test, with 123 degrees of freedom and a (t)-value of 3.239.

These disparities favored individuals who studied MIL, with a mean score of 2.0758 and a standard deviation of 0.86488, followed by the non-media education study sample, with a mean score of 1.7966 and a standard deviation of 0.86662.

As a result, the first primary hypothesis was confirmed and approved, demonstrating statistically significant differences.

Hypothesis (2): There are statistically significant differences in students' ability to detect fake news based on the hours of social media usage.

An analysis of variance (One Way Anova) was performed at a significance level of 0.794, with 2 degrees of freedom and 122 degrees of freedom, for the detection of fake news based on the variable of the number of hours of social media usage. The F-value was 0.231, which indicates that there are no statistically significant differences in students' capacity to spot fake news depending on the variable of the number of hours spent on social media.

As a result, the second main hypothesis was found to be invalid and rejected, as there are no statistically significant differences in students' capacity to detect fake news based on the variable of social media time spent.

Hypothesis (3): There are statistically significant differences between the type of education, whether public or private, and students' ability to detect fake news.

Testing third hypothesis showed that there are no statistically significant differences in students' ability to detect fake news based on the variable of college ownership whether public or private. This was found by running a t-test with 123 degrees of

freedom and a significance level of 0.280, yielding a t-value of 1.178, which is not statistically significant. This means that there are no statistically significant variations in students' capacity to detect fake news based on whether they attended public or private school.

As a result, the third main hypothesis was determined to be invalid and rejected, as there are no statistically significant variations in students' capacity to spot fake news based on whether they attended public or private school.

Hypothesis (4): There are statistically significant differences between studying the study sample of MIL and the believability in news produced by media institutions and news produced by social media users.

There are two sub-hypotheses generated from the fourth hypothesis as follows:

The first sub-hypothesis: There are statistically significant differences between studying the study sample of MIL and the believability in news produced by media institutions.

Testing hypothesis four revealed statistically significant differences in students' trust in news produced by media institutions based on whether or not they study MIL. This was established using a t-test at a significance level of 0.05, 123 degrees of freedom, and a statistically significant t-value of 2.812. These disparities favor individuals who studied media education, with an average score of 3.52 and a standard deviation of 1.193, followed by the non-media education study sample, with an average score of 3.17 and a standard deviation of 1.101.

The second sub-hypothesis: There are statistically significant differences between studying MIL and the believability in news produced by social media users.

Testing sub hypothesis four showed there are no statistically significant variations in students' believability in news provided by social media users dependent on whether they study MIL or not. This was assessed using a t-test with 123 degrees of freedom and a significance level of 0.681, yielding a t-value of 0.169, which is not statistically significant.

This means that there are no statistically significant variations in students' capacity to trust news provided by social media users based on whether or not they studied media education.

The fourth primary hypothesis was partially supported based on the results of the previous hypotheses. There were statistically significant disparities in the study sample of MIL students' believability in news produced by media institutions. However, no statistically significant differences in trust in news provided by social media users were discovered in the study sample of MIL students.

9. Conclusion:

- 1) Regarding the significance of MIL education in detecting fake news, the research concluded the following:
 - a) The study's results reveal that the accuracy of verification real news is similar between respondents who studied MIL and those who did not, even in cases of uncertainty.
 - b) *In terms of spotting fake news, people who studied MIL appear to have a stronger capability than those who did not. This distinction is particularly pronounced when it comes to news generated by social media users.*

Though, *the study findings show a disparity between respondents' assessments of the role of studying MIL in detecting fake news and its actual application through real detection.* In general, 40.8% of the survey participants scored low in a scale recognizing fake news. In particular, only 24.7% and 84.4% of MIL students were able to recognize fake news in samples four and two, respectively.

2) *The following conclusions can be taken from the study results regarding the adopted theoretical framework:*

- a) In terms of the Message Interpretation Process model (MIP), the study results revealed that respondents' perceptions of message believability and subsequent behavior were consistent. When asked if they would share the news samples they were exposed to during the experiment, 45.6% of respondents said no. The second and fourth fake news samples were the least liked for spreading, with percentages of 8.8% and 4.8%, respectively.
- b) The reasons for respondents' answers are related to the level of skepticism about media messaging. The key contributing elements are identified as low media involvement, conflicts between the news and respondents' personal experiences and knowledge, uncertainty about the sources within the news, information that appeared overstated, and anonymous sources.

This demonstrates that studying protected respondents against the risks of disseminating misleading news.

- c) As for Audience's acts of authentication, results showed that respondents relied largely on internal authentication of news based on their experience, followed by evaluating the news story itself and judging the dependability of news sources. External authentication came in second, requiring the verification of news from other sources and polling family and friends.

- d) Respondents recognize the significance of social media in the spread of fake news. This understanding prompted them to exercise caution when it came to spreading such material, notably by refraining from sharing news when they had doubts about its veracity.

Consequently, Though the majority of respondents gave higher percentages for external news authentication, particularly when it comes to checking and the reliability of trustworthy news sources, in practice, news verification highlights the influence of internal authentication actions more than external ones.

In conclusion, studying MIL course is helpful in assisting respondents in detecting fake news than those who didn't study the course. However, respondents' ability to recognize fake news is relatively low. Furthermore, respondents' perceived ability to detect fake news is less than their actual performance. Due to concerns about the news's believability, a large proportion of respondents did not take any post-reading steps, which lessen their role as information disseminators. The findings demonstrate that respondents had a general difficulty discerning between true and fake news, especially when it was affiliated with trustworthy sources, which is a major worry. This shows that, while MIL courses can help spot fake news, more reinforcement is needed to achieve superior learning outcomes in real- applications.

10. Recommendations:

The following model is a recommendation that aids in both the theoretical and practical application of MIL skills for use in the detection of fake news. The concept is built on the fundamentals of providing essentials of course description, which includes course content, course objectives, learning outcomes, acquired skills, and teaching methods.

Table (1) : structuring MIL courses in detecting fake news

<p><u>Course content:</u></p> <ul style="list-style-type: none"> • Course content should explicitly include the item of detecting fake news in digital media. 	<p><u>Course objectives:</u></p> <ul style="list-style-type: none"> • Students will be able to accomplish one, or more of the following objectives: ✓ Access: a variety of digital news sources. ✓ Evaluate: Examine the reliability of the news. ✓ Analyze: Examine the news thoroughly extensively, including its qualities, origins, and any ramifications. ✓ Create: correct news content. ✓ Act: positive attribution through dissemination of true news.
Structuring MIL course role in detecting fake news	
<p><u>Learning outcomes & acquired skills:</u></p> <p>a) Knowledge and understanding:</p> <ul style="list-style-type: none"> ✓ Understanding the structure and dynamics of the media landscape, including different types of media platforms. ✓ Identify reliable and credible news sources, including traditional media outlets, fact-checking organizations, and reputable online sources. <p>b) Intellectual skills:</p> <ul style="list-style-type: none"> ✓ Develop Familiarity with common characteristics and indicators of fake news, such as misleading headlines, manipulated images, and biased reporting. ✓ Examine various Fact-Checking Techniques. ✓ Awareness of the mechanisms and strategies used to spread misinformation, including clickbait, social media manipulation, and viral misinformation campaigns. <p>c) Practical skills:</p> <ul style="list-style-type: none"> ✓ Apply both internal and external authentication methods to analyze news. 	<p><u>Teaching & Learning methods:</u></p> <p>a) Teaching methods:</p> <ul style="list-style-type: none"> ✓ Discussions ✓ Interactive workshops ✓ Gamifications ✓ Guest speakers and experts <p>b) Learning methods:</p> <ul style="list-style-type: none"> ✓ Assignments ✓ Experiential Learning <p>c) Both learning & teaching methods:</p> <ul style="list-style-type: none"> ✓ Problem based learning ✓ Simulation & role play ✓ Case studies <p>- The following tools could be applied through various learning & teaching methods:</p> <p>a) Internal authentication tools: such as reverse text & image search, through searching and identifying origin of news sources, contacting institutions directly,</p> <p>b) External authentication tools: applying fact checking tools from external sources as cross-referencing sources with other websites, using fact checking software, and AI fact checking bots, social media analysis via artificial intelligence</p> <ul style="list-style-type: none"> ✓ cross-referencing sources and using fact-checking websites.

In addition, it is advisable to consider taking multiple courses within the field of MIL, as it would be challenging to cover the topic of fake news within a single course.

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