

**Mechanisms for Employing Digital Tools and Artificial Intelligence by Digital Platforms to  
Detect the Spread of Fake News Across Social Media Networks  
-A Case Study on the Misbar Platform-  
Zohra Naceri <sup>1</sup>, Mokhtar Djellouli <sup>2</sup>**

<sup>1</sup> Iben-Khaldoun University Tiaret (Algeria), [zohra.naceri@univ-tiaret.dz](mailto:zohra.naceri@univ-tiaret.dz)  
Laboratory for the Analysis, Profiling, and Design of Media Products  
in Economic, Social, and Political Fields. Oran 01 University.

<sup>2</sup> Iben-Khaldoun University Tiaret (Algeria), [mokhtar.djellouli@univ-tiaret.dz](mailto:mokhtar.djellouli@univ-tiaret.dz)

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**Abstract:**

This study aims to shed light on the digital tools used by Misbar platform employees in detecting fake content and the mechanisms for countering it, while analyzing their responses and interactions with these tools. Additionally, the study investigates the extent to which artificial intelligence is employed and assesses its impact on the spread of fake news.

Among the key findings of the study is that fact-checkers on the Misbar platform rely on essential tools for detecting fake content, such as InVID and Who Posted What, in addition to Google tools, due to their effectiveness in providing acceptable and rapid results. There is also a lack of complete trust among fact-checkers in the outputs of artificial intelligence for detecting fake news, as its results alone are insufficient due to the AI's inability to grasp the social context and the political and cultural dimensions behind the dissemination of fake news. Therefore, AI cannot reliably match human capabilities in critical analysis in such cases.

**Keywords:** Digital Tools; Fake News; Digital Platforms; Artificial Intelligence; Misbar Platform.

**ملخص:**

جاءت هذه الدراسة لتلقي الضوء بهدفها العام على الأدوات الرقمية التي يستعين بها موظفي منصة مسبار في اكتشاف المحتوى الزائف وآليات مواجهته، مع تحليل استجاباتهم وتفاعلهم مع هذه الأدوات. وكذا البحث في مدى توظيفهم للذكاء الاصطناعي وتقييم تأثير ذلك على طرق انتشار الأخبار الزائفة.

من أبرز نتائج الدراسة أن مدققي المعلومات في منصة مسبار يشتركون في أدوات أساسية لاكتشاف المحتوى الزائف وهي InVID و Who Posted What إضافة إلى أدوات Google نظرا لنجاحاتها في مدهم بنتائج مقبولة وسريعة. كما هناك عدم ثقة تام لمدققي المعلومات في مخرجات الذكاء الاصطناعي في كشف الأخبار الزائفة. إذ لا يمكن الاكتفاء بنتائجه؛ لعدم إحاطته بالسياق الاجتماعي والبعد السياسي والثقافي من وراء نشر الخبر الزائف، وبالتالي لن يستطيع مجاراة قدرات البشر على التحليل النقدي بشكل موثوق في هذه الحالات.

**الكلمات المفتاحية:** الأدوات الرقمية، الأخبار الزائفة، المنصات الرقمية، الذكاء الاصطناعي، منصة مسبار.

## 1. INTRODUCTION

Communication technology has played a pivotal role in changing the patterns of interaction and communication among individuals in society. It has become easy to create social media platforms that allow the sharing of opinions, ideas, news, photos, videos, and more, with the ability to interact using various forms of communication, primarily based on information about the posted content. However, the nature of social media platforms, their widespread use, ease of access, the multitude of content creators, and the rise of citizen journalism have provided an environment conducive to creating fake news about individuals, communities, institutions, nations, and others. This has led to an impact on the opinions and beliefs of users, reflecting on their lived reality. Consequently, some individuals and institutions have taken the initiative to combat this fake and misleading news by developing digital platforms whose function is to track fake news, identify its sources, verify it, and then debunk it with evidence (photos, videos, texts, etc.).

These platforms' strategy is based on employing a set of digital tools specifically designed to monitor and combat fake news by reaching the original source of the news and determining the place and time of the initial publication. They also analyze the modifications made to videos and examine the fine details of images, such as lighting and shadows, which help in understanding the temporal and spatial context of the image. Their results are reviewed through multiple search engines simultaneously, relying on what is known as reverse image search, in addition to utilizing advanced search tools provided by global platforms like Facebook, X (formerly Twitter), and Google. Given that automation has become a hallmark of the modern age, artificial intelligence applications have also been recently utilized in this field. After artificial intelligence contributed to the spread of fake news, such as through deepfakes, it is now employed to mitigate them and their consequences by determining whether images and videos were AI-generated or not.

### 1.1 Study problem

The problem of this study can be formulated in the following questions:

- What are the digital tools that the Misbar platform uses to detect fake news?
- To what extent do its employees rely on artificial intelligence in their truth-seeking efforts?

The following sub-questions fall under this problem:

- What is the Misbar platform, and what is its purpose?
- What are the primary methods the Misbar platform relies on to track fake news trending on social media networks?
- What are the key applications of digital tools and artificial intelligence in detecting fake news?
- To what extent does the Misbar platform use digital tools and artificial intelligence to verify fake news circulating on social media networks?

### 1.2 Study Objectives

- To identify the type and form of fake news verified by the Misbar platform and the relationship between this and the selection of the appropriate digital tool.
- To explore the type and nature of digital tools used by the Misbar platform to detect fake news trending on social media networks.
- To understand the digital tools employed by Misbar platform employees in discovering fake content and the mechanisms for addressing it, while analyzing their responses and interactions with these tools. Additionally, to examine the extent to which they employ artificial intelligence and assess its impact on the spread of fake news.
- To determine the extent to which the Misbar platform uses digital tools and artificial intelligence in the process of verifying fake news circulating on social media networks.

### 1.3 Study importance

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In recent years, there has been a significant rise in the spread of fake and misleading news across social media platforms. This phenomenon has been fueled by various social, political, and economic factors that have contributed to its proliferation. However, the impact of this news is not limited to the virtual world; it inevitably affects the daily lives of its recipients. This has led certain entities to take responsibility for combating fake news and adopting counter-narratives by creating platforms to verify the credibility of circulated news. Given the rapid advancement of technology and the emergence of digital tools and artificial intelligence as a new factor in the digital landscape, methods for dealing with such news have become more effective in detecting fake news, with many platforms adopting these technologies. Based on this, our study aims to uncover the key digital tools employed by these platforms to detect fake news on social media networks, as well as the extent to which they rely on artificial intelligence in their work, using the "Misbar platform" as a case study.

**1.4 Study Concepts****1.4.1 Concept of digital tools**

Terminologically: Online digital tools refer to programs, applications, technologies, plugins, or websites that can be accessed via the internet. (Dancsa, Štempeľová, Takáč, & Annuš, 2023)

Operationally: These are digital tools and applications designed to monitor the spread of fake news on social media networks, track their details, and facilitate the work of platforms in detecting such news by reducing the time and effort required.

**1.4.2 Concept of fake news**

Terminologically: According to (Serena & Elisa, 2021), fake news refers to pieces of information that have been deliberately manipulated, appearing generally on the internet and particularly on social media. Initially, the spread of fake news was associated with political life, such as elections and international crises. Over time, its use rapidly expanded to encompass all aspects of politics and life. The researchers note that fake news does not necessarily negate facts but proposes misleading interpretations or invents non-existent but plausible facts, which can have lasting effects on the audience. (Serena & Elisa, 2021) The most distinguishing characteristic of fake news is the intent to deceive by its publishers, a point confirmed by (Greifeneder, E. Jaffé, J. Newman, & Schwarz, 2021) colleagues in their study. Alternatively, it can involve the deliberate distortion of reality in a systematically manipulative way. (Patrick, 2023)

Operationally: Fake news refers to any information created on social media with the intent of spreading false information, whether by presenting incorrect or misleading data or taking information out of its true context to users, either intentionally or unintentionally.

**1.4.4 Concept of digital platforms**

Terminologically: A business model based on connectivity and functionality, allowing multiple participants (producers and consumers) to connect, interact, and create or exchange value. In the same text, digital platforms are defined as open, participatory infrastructures that allow the exchange of services, products, or social commonality, enabling meaningful value exchange among all participants. (Al-Suwaidi, 2020).

Operationally: Digital platforms refer to the interactive digital environment enabled by the internet for institutions and individuals to create a virtual space, allowing them to carry out their tasks in tracking fake news and identifying the parties responsible to raise awareness among users.

Operational definition of Misbar platform: It is an independent Arab electronic platform launched in late 2019, aimed at verifying news and combating the spread of fake news on the internet, particularly on social media, using a set of digital tools and applications available online.

**1.4.4 Concept of artificial intelligence (AI)**

Terminologically: The term "artificial intelligence" first appeared in 1956, with its development beginning after World War II, and it is one of the newest fields in science and engineering. Ballman (1978) defines it as the automation of activities associated with human thinking, such as problem-solving, decision-making, and learning. Winston, on the other hand, defines AI as the study of

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computational processes that make it possible to perceive, reason, and interact. (Stuart & Peter, 2009)

Operationally: AI is a branch of computer science capable of simulating human intelligence through various technical systems that enable it to learn, think, interact, and make decisions in ways similar to the human brain.

### 1.5 Study methodology and tool

#### 1.5.1 Case study methodology

Among the many definitions of the case study method, it is often described as a detailed investigation of specific individuals, groups, or institutions... applied to a single subject of study or multiple subjects. (Al-Haizan, 1998), primarily used in qualitative research. (Patnaik & Pandey, 2019) From this definition, we believe that selecting the Misbar platform will allow for the collection of sufficient information in an in-depth and focused manner, enabling a thorough understanding of the most important digital tools and artificial intelligence applied in the work of fact-checkers on digital platforms, whether in their search for the truth behind fake news or in exposing it to users.

To conduct an in-depth qualitative study, the "Misbar platform" was chosen as a case study for several reasons, including:

- It is the most comprehensive platform, as it does not monitor only sports content, political content, or artistic content but investigates the truth across various fields. It also covers fake news from different countries around the world, which gives Misbar a broad audience base, both on its official website and social media.
- It is an independent platform that addresses claims relevant to the public and has an impact on them. Its articles provide excellent investigative sources, as they often rely on primary or trusted sources, which can be observed at the end of each investigation.
- Most importantly, it relies on digital tools to verify fake news circulating on social media, in addition to offering workshops on these tools, which have benefited many individuals from the Arab world.

#### 1.5.2 Study Tool

Based on the research requirements of the subject, we relied on the interview tool in its form as the focus interview, where the researcher studies a specific experience undergone by a group of respondents in a particular situation (Hussein, 1976). This method aligned with the researcher's desire to obtain detailed insights, opinions, and attitudes of Misbar platform employees regarding digital tools and artificial intelligence used for monitoring and detecting fake news, with a focus on their personal experience when utilizing these tools. Accordingly, the interview was conducted with the employees through Google Meet after contacting them via email to schedule a suitable day and time, considering the distance between the researcher's location (Algeria) and the platform employees' locations in other Arab countries. The schedule was as follows:

No.	Employee Names	Position	Country	Interview Time (Date & Time)	Interview Duration	Response Rate to Questions
1	Bayan Hamdan	Information Editor & Auditor	Jordan	Thursday 2024/07/25, 15:00 (Algeria Time)	38:03 min	100 %
2	Fatima Hammad	Information Editor & Auditor	Palestine	Sunday 2024/07/28, 15:00 (Algeria Time)	22:40 min	100 %
3	Mahmoud Samir Husssunien	Information Editor & Auditor	Egypt	Tuesday 2024/07/30, 10:00 (Algeria Time)	34:34 min	100 %

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4	Mahmoud Hasan	Information Editor & Auditor	Qatar	Wednesday 2024/07/31, 12:00 (Algeria Time)	32:24 min	92.86 %
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Source: Researchers work

The study also relied on simple scientific observation, aimed at obtaining preliminary data about the phenomenon to form an initial idea or concept (Taniou, 2020). This method was used as a supporting tool by observing the Misbar platform's website and its surrounding environment, including articles, videos, interviews, and more, along with the platform's social media accounts. These observations provided a general idea of the platform's workflow and helped in identifying the study sample, in addition to aiding in the analysis of the interview questions based on the observations made.

### 1.6 Study Population and Sample

The Misbar team consists of 14 employees, divided into 10 information auditors and 4 content producers. Since the study aims to investigate the digital tools and artificial intelligence used to detect fake news, the study population is limited to the 10 information auditors, as their role on the platform is to investigate, track, and verify fake content on the internet. Due to the researcher's inability to reach the entire population, which is distributed across several countries, despite many attempts, the study was conducted with an available sample of 4 information auditors. The sample was accessed by using the purposive sampling method to reach the first participant, who then referred the researcher to the other study participants, following the methodological technique known as the snowball sampling.

### 1.7 Study Limitations

- Thematic Limitations: The study focuses on identifying the key digital tools and artificial intelligence used by digital platforms to detect fake news on social media networks, with Misbar platform selected as the model for the study. The study relies on digital interviews as a tool, conducted with a sample of the platform's employees.
- Temporal Limitations: The period for conducting the practical study (interviews) extended from July 25 to July 31, 2024, following prior communications to schedule the interview appointments with the platform's employees.
- Spatial Limitations: The interviews with Misbar platform employees were conducted remotely using Google Meet.

### 1.8 Practical Aspect of the Study

#### 1.8.1 Personal Data

The interview was conducted with four employees from the Misbar platform (2 males and 2 females) aged between 27 and 29 years. Their educational level is university, with three holding bachelor's degrees (license) and one holding a master's degree. Their fields of study vary between engineering, media, and sociology. Their job title on the platform is information editors and auditors.

## 2. Introduction to the Misbar Platform

### 2.1 When was the Misbar platform established?

The initial steps to establish the Misbar platform began at the end of 2019, with its official launch in 2020. This was confirmed by all the platform's employees and is supported by the information found on the platform's website (<https://Misbar.com/>).

Misbar is considered one of the first Arab platforms dedicated to detecting fake news. It is noteworthy that, at the time of its establishment, the world was dealing with the outbreak of COVID-19, the first global pandemic coinciding with the presence of social media platforms with

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interactive features that allowed content to spread widely and rapidly among millions of users. The consequence was the spread of fake news, which threatened the health of citizens due to the lack of content regulation and the difficulty of identifying its source or verifying its claims in the Arab world. Thus, the platform emerged during that period and continues to operate to this day.

**2.2 What is the purpose of establishing the Misbar platform?**

Most employee responses pointed to a primary goal for the platform's establishment: detecting fake news spread, particularly on social media. They expressed this in various terms, including: "fact-checking," "combatting misinformation in the digital space and limiting the spread of fake information and news," and "fighting misleading information circulating in the public sphere." These are among the key goals of the platform, as confirmed by its founders in the platform's introductory statement on the website.

Due to the vast amount of misleading, false, and fabricated information, whether intentional or not, particularly in Arab countries, it became necessary to establish platforms aimed at countering this flood of fake news and confronting the parties benefiting from its spread. Misbar is one of the most important platforms striving with complete neutrality to achieve its set objectives. This is reinforced by Misbar's managing editor, Mohammed Sheikh Yousef, in an interview with the International Journalists' Network, where he stated that restoring internet users' trust in media and news platforms was the main motivation behind launching the website. He added that the sheer volume of fake and fabricated news across various fields necessitates launching such initiatives without manipulating facts or favoring any parties (Cheninou, 2020).

**2.3 How many employees does the Misbar platform have?**

Half of the respondents mentioned that the Misbar team consists of 14 employees in total, divided between 10 in the editorial team (information editors and auditors) and 4 in the production team (responsible for content production on social media), in addition to correspondents from various countries around the world. However, the other half of the respondents did not have precise information on the matter. One of them explained this by stating that they had recently joined the platform, while the other was unsure and preferred not to provide inaccurate information.

The roles of the employees at the platform vary. One team works to detect fake news circulating on social media and track it; another team focuses on verifying the sources of the news, the accuracy of the information, and its validity through analysis, using specific methods and tools to ensure the accuracy of the circulating content. A third team works on presenting the analyzed material and exposing its falsehood through creative and technical means for the platform's followers.

**3. The Misbar Platform's Approach to combating Fake News on Social Networks.****3.1 What are the classification levels of fake news according to your platform? (i.e., types of fake news).**

The first respondent identified seven types: misleading, fake, accurate content, sensational, selective, satirical, and mythical, providing detailed explanations for each type. The second respondent also mentioned seven types, with less elaboration: misleading, fake, accurate classification, mythical, selective, sensational, and satirical, offering brief explanations. The third respondent presented five types: fake, misleading, sensational, satirical, and accurate. Finally, the fourth respondent identified four types: satirical, misleading, fake, and selective. The respondents' answers were ranked based on the number of types mentioned and their ability to explain them, from the most to the least comprehensive.

The responses ranged from being complete (with the classifications detailed on the website <https://Misbar.com/our-methodology>) to those missing two or three types, focusing on the most relevant ones encountered during their investigations and analyses. The respondents' answers shared

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three common classifications:

- Misleading: News that contains some truth but manipulates the context of events and their progression.
- Fake: Entirely fabricated content.
- Satirical: The news is untrue but is shared in a humorous way to engage the audience. This was confirmed by Claire Wardle and Hossein Derakhshan, who highlighted the idea that satire does not intend to deceive, considering satire a form of art (Sherlin & Boucetti, 2020).

**3.2 How do you find or search for fake news amidst the continuous flow of false information on social networks?**

There are several methods for identifying fake news, as explained by the employees of the Misbar platform:

All respondents agreed on using traditional monitoring methods, which include personal observation of news on social networks and actively searching for it, described by one respondent as “constantly browsing social media.” Other methods followed, such as the majority of employees confirming the existence of a team of correspondents in different countries whose job is to track fake news, verify it, and then send it to them for analysis. Most respondents also mentioned tools that assist them in this, including Full Fact AI, which one respondent described as: “helping us monitor by suggesting specific claims or facilitating the search for certain claims to fact-check.” Some respondents also referred to messages from the public as a source for finding fake news. There were also unique responses highlighting different methods for accessing false news, such as: One respondent stated that they “recently started using artificial intelligence to monitor news, keywords, and suspicious content, which they then subject to further investigation.” Another mentioned that if “there is significant interaction with certain content, especially if it concerns public interest, we may produce material on it.” Another respondent added, “We have monitoring lists containing most or all accounts and pages of media outlets that consistently publish claims, which we follow daily.”

All respondents share the characteristic of relying on traditional methods to monitor fake news, which stems from the human tendency to seek out information about the world around them. It is undeniable that this desire increases when it aligns with their work, as is the case with the platform's staff, including fact-checkers and information editors. This process begins with personal observation of social media platforms and the content circulating on them. Most of the respondents also participate in other methods, given that they are part of a unified team with virtual rooms for discussion and debate, which naturally leads to the exchange of expertise among them. It is worth noting that the platform has an interactive feature for the public, “[Report a Claim](#),” which is a portal on the website that allows users to send false claims to the team for investigation and verification.

**3.3 What are the criteria used by the Misbar platform for selecting which news to debunk? (i.e., why accept some news and reject others).**

Most respondents explained that the widespread nature of fake news and public interaction with it are critical factors in choosing which content to debunk. The importance of the claim and its relevance to current events, both regionally and internationally, follows. For example, one employee mentioned, “If something is happening right now, like in Majdal Shams or the Olympics, it's very important for us to fact-check because it's a current event.” Other criteria include the potential physical, psychological, and moral impacts that false news may have on readers. They also consider whether the topic will receive media coverage, as some topics may not warrant attention or effort. It is noteworthy that the flood of misinformation and fake news can have varying impacts depending on the importance of the news and its influence on the real and virtual lives of users. Thus, some fake news may not undergo fact-checking, even if it is false, because it does not concern a large portion of the population, making it unnecessary to expend effort debunking it. It is unreasonable to fact-check news, label it as false, and have the outcome benefit no one. Therefore,

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the criteria for selecting fake news for verification focus on the extent of the news' spread among the public and their engagement with it. The more widespread the fake news, the greater its potential impacts—both expected and unexpected—which may lead to psychological or even physical effects on users.

**3.4 What are the stages involved in debunking fake news? From identifying the news to debunking it?**

The responses from Misbar employees varied regarding the stages involved in debunking fake news. Some mentioned that the news reaches them as a suggestion from Misbar's correspondents, after which the team evaluates whether to pursue the story. If approved, the correspondent drafts an initial fact-check based on their sources, and the material is then sent to the team for review, enrichment if necessary, and verification of the fact-check's accuracy. The lead editor reviews the fact-check one final time before publishing it on Misbar's website and its social media accounts. In other cases, employees may find the news themselves, as they are constantly browsing, and if they encounter fake news, they discuss it with colleagues. Once agreed upon, work on the fact-check begins individually, with the content submitted for editing and then publication—this all occurs after observing and investigating the context of the alleged news.

Another respondent summarized the stages without specifying the participants: "We start, of course, with monitoring, which involves searching for claims and identifying a specific claim. Then comes the verification stage, where we fact-check the claim by investigating its truth and confirming the accuracy of the information, either using special tools or traditional research into the details of the news. Finally, we publish the fact-check."

From the above, the process can be divided into four main stages. The first stage relates to the employee who is the source of the news and is responsible for searching and submitting the analysis material, whether that person is a correspondent for the platform or the information editor and fact-checker themselves. The second stage is the verification of the fake news, which can be done using the personal expertise of the fact-checkers or through the use of digital tools, especially those related to images and videos, or by combining both methods. The third stage involves sending the verified content from the fact-checkers and editors to the lead editor for review. Finally, the fourth stage is the publication of the content in formatted templates and text on Misbar's website and social media pages.

These stages can be inferred from the way each employee operates, as there are certain superficial—though not fundamental—differences due to factors such as individual differences in skills, research methods, knowledge on the subject, and sometimes intuition, in addition to the nature of the material under analysis. For instance, if the material is a video or image, it is necessary to refer to the original video or image, the initial publisher, and the purpose and intent behind the publication. Fact-checkers and editors do not rely on any fixed approach in their analysis, as the process is flexible and constantly evolving based on the nature of the material and the subject matter. Therefore, what matters most is uncovering the truth behind fake news and raising public awareness about its intentions, rather than the uniformity of the stages or steps involved in the process.

**4. Digital Tools and Their Key Applications in Debunking Fake News****4.1 What is your general view or perception of the digital tools used in debunking fake news?**

Most respondents indicated that digital tools play a crucial role in facilitating and speeding up the fact-checking process, as this task naturally requires significant time and effort. Some added that the effectiveness of these tools depends primarily on the person conducting the verification, who must apply sound reasoning and a scientific approach to debunking claims. Only after this does the role of the tools come into play. However, no tool, even with artificial intelligence, can uncover the

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truth behind a claim with 100% accuracy without human intervention, as these tools have limitations and require human oversight and reasoning to determine the validity of claims. One respondent noted that the tools are only useful in certain cases, stating, "Of course, I use them if the verification requires it, but most of the time, our immediate fact-checking work does not need them because, with experience, you can recognize how these news stories are created or where they originated without using the tools." This statement highlights the role of intuition, which has developed over time in detecting and dealing with fake news.

The respondent also provided an example of the most commonly used tool in their work: instant translation. Since they deal with news in various languages, they need access to foreign platforms to search for the origins of claims. Another researcher emphasized the need to follow specific methods when using digital tools to avoid what they called "obsession with using technology that doesn't help in analysis." If an employee is proficient in verifying the accuracy of the news using traditional methods and can provide a sound fact-check, there is no need to use technical tools, as it would be an unnecessary luxury.

Regarding the overall opinion of respondents on digital tools, there is a general consensus on their immense importance when employed in contexts where fact-checkers and editors need them. These tools were not developed arbitrarily but serve specific goals and purposes. Therefore, if a tool can accelerate the work process and save effort, there is no reason for an employee not to take advantage of it. As such, the prevailing view is that these tools are appreciated and used by employees; however, reliance on them is tied to the research and investigative needs of each individual, ensuring their use does not become merely habitual or a waste of technical resources.

**4.2 How effective and reliable are digital tools in the fact-checking process and detecting fake news, based on your experience with them at Misbar?**

Half of the respondents agreed that digital tools for debunking fake news are highly effective when dealing with images or video footage. One respondent estimated their effectiveness at 90% in uncovering the truth behind images and videos. Another respondent elaborated, stating that they do not find these tools as useful outside the context of images and videos, meaning their effectiveness is not as high when applied to other types of content. They gave the example of news articles and official statements, which typically do not require tools to verify, as the information is usually available from the primary source. Therefore, the importance of these tools is determined by the type of verification and the nature of the work. Moreover, there is an additional effort beyond digital tools, such as the work that falls on the editor, like searching with keywords to verify the authenticity of certain images or footage.

Two other employees explained that they do not rely solely on the result of a single tool during verification. Instead, they must find direct evidence that supports or refutes the tool's findings. One respondent gave an example involving artificial intelligence, which might determine that an image was generated using its technology. In such a case, they would not depend solely on this result but would back it up with sources and evidence, reviewing both the source and the result to verify its accuracy before including it in the material. Another example involved the InVID tool. The respondent explained that they would input an image into the tool, which would return the result of a reverse search showing when the image was published. However, the team would then go back to the original post, check the publication date, verify who posted it, and confirm the information, rather than relying solely on the digital tool's result.

The extent to which each respondent uses digital tools in the verification process depends on how beneficial they find each tool. Their effectiveness increases when the content being verified involves images or videos, as these are easier to trace and search through reverse methods. However, reliance on these tools decreases in other cases due to the availability of alternatives or the possibility of completing the task without them.

## 5. The Extent of Misbar's Use of Digital Tools and Artificial Intelligence in Detecting Fake News

### 5.1 Has Misbar used digital tools since its inception, or were they adopted later?

One respondent believes that any platform aiming to grow will naturally use the available tools to achieve this. Another confirmed that, as fact-checkers, they generally use these tools, though they do not rely entirely on them; instead, they depend on their own research. However, since the tools make their tasks easier and save time, they have been using them for a long time and are committed to keeping up with any new developments or tools that are created or improved for their use.

Another respondent confirmed that Misbar has relied on digital tools since its establishment, as these tools are older than the platform itself and existed before Misbar. They emphasized that no fact-checker can work in this field without using these tools, stating, "So, from the beginning, we used them, and they helped us with most of the claims."

The respondents' answers were diverse but all indicated that the tools have been available, and each of them has used these tools since joining the platform, albeit at different times. One of the oldest employees explicitly confirmed that they have been using these tools since the platform's early days. It is worth noting that digital tools in this field existed before Misbar was founded, as they were already in use by other foreign platforms such as [Full Fact](#) in the UK and [AFP Fact Check](#) in France, which were pioneers in the field, along with many other platforms worldwide. Therefore, it is only natural for Misbar to use these tools to enhance its efficiency and credibility with its audience, especially since these tools are free and available on the internet.

### 5.2 What digital tools do fact-checkers at Misbar rely on to detect fake news?

All respondents agreed on the extensive number of digital tools dedicated to debunking false claims and revealing the truth to the public. They also confirmed that these tools are used daily, especially when the material under analysis involves images and videos, which top the list of priority content. The respondents discussed various investigative tools and explained how they are used, which can be divided into two main categories:

#### 5.2.1 Reverse Search Tools:

Available through search engines like Google [RevEye](#), this tool is crucial and is widely used by employees to verify the authenticity of images and scenes. It allows reverse image searches across four different search engines:

- Google
- Bing
- Yandex
- TinEye

Another tool frequently used by most employees to verify scenes is [InVID](#), developed in collaboration with [AFP](#) (Agence France-Presse). This tool helps break down video clips into still images and enables reverse searches for each image on search engines, assisting in uncovering the source of videos. InVID is particularly focused on content from Meta's platforms.

#### 5.2.2 Advanced Search Tools

- Advanced search on Facebook: Through the tool [Who Posted What](#), developed by Meta for advanced searches on Facebook and Instagram, this free tool is used to search for claim publishers. It can lead to the original publisher of a claim, which is crucial for fact-checkers, even if the post was made years earlier or on different dates. The search is conducted using keywords. One employee provided an example of its use, stating: "If we have a certain claim, such as a picture allegedly from southern Lebanon, we enter the claim in the search bar. There are multiple options to search by day, year, or month. We select the necessary options and search accordingly."

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- Advanced search on X (formerly Twitter): This tool allows searching within the platform, separate from Who Posted What, which is specific to Meta products. It helps in verifying certain claims or news and sometimes in identifying the original publisher or date of a claim, among other details.
- Google Operators: These facilitate advanced searches on Google. One respondent explained how they work: “If we want to find information mentioned on a particular website or limit the search results to a site like Misbar or Al Jazeera, we can write in the search bar: site followed by the website and then the keyword.” The use of operators such as (And) or (Or) allows specifying whether both keywords or just one should appear in the search results. The asterisk (\*) operator is useful when recalling part of a phrase but forgetting a specific word, allowing Google to fill in the gap and search for the complete phrase.

**5.2.3 Transcription Tools**

These tools extract text from videos. Currently, Misbar has access to such tools through a partnership with Full Fact, which provides these services, as such tools are often not free. One employee explained how the tool works: “For example, if Netanyahu gave a speech yesterday before the US Congress, instead of watching the video repeatedly, we can extract the text of Netanyahu's speech and search through the text, making it easier to verify whether certain statements were made.”

**5.2.4 Google Maps and Google Earth**

One employee discussed using these tools to conduct virtual tours when verifying whether a video took place in a specific location based on geographic landmarks. Google Earth provides aerial images, allowing comparisons between the geographic features in the news or video and the actual location.

**5.2.5 [Archive.is](#)**

This tool is used when dealing with archived articles. One respondent uses it to access full articles that have been archived online, allowing them to retrieve and read the content for free. The employee noted: “I need to read full articles for translation purposes, or to verify if someone attributed something to The Guardian, for example, claiming that it said something in a particular year. I use this tool to check if that claim was indeed made.”

**5.2.6 Additional Google tools**

Other tools mentioned include [Google Fact Check Tools](#) and [Google Lens](#).

There are also tools used by some employees, though less frequently, which are related to artificial intelligence and programming. These include:

- Audio analysis tools in videos to determine if the video has been spliced together from different segments or if it is a single, continuous clip.
- Tools for detecting deepfakes and manipulated videos.
- Tools to detect frames within a video, revealing how the frames were compiled, especially in cases where videos are seamlessly edited to hide cuts.
- Image manipulation detection tools, which can reveal modifications by reversing the image colors. This method removes natural colors, making it easier to spot any points of alteration.
- Specialized soundwave analysis programs, which are particularly important. One employee provided an example: "If we have a video of an event where people claim to be in a hospital, we use our experience. For instance, a hospital in Gaza is expected to be very crowded, so the setting should not be quiet. This is in addition to other evidence. One of the ways we assess this is by analyzing sound waves to determine if the noise levels are normal for the environment or if it's a studio." Sound analysis is critical for understanding the rise and fall of noise levels and determining if the location is authentic.

Undoubtedly, there are dozens of digital tools dedicated to detecting the falsity of news circulating on social media. However, the degree of reliance on these tools by fact-checkers and

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editors at Misbar depends on two factors: first, the nature of the material being verified, and second, the technical and investigative inclinations of each individual. There is overlap among respondents in the use of certain tools, but there are also individual differences in how they are employed. Some may use a tool to determine the true date and original source of a video, while others might go beyond that to check if another platform has already verified the same topic, avoiding redundant effort or supporting their own work.

It is also important to note that these digital tools are constantly evolving. It is entirely possible to discover a new tool during the verification process, depending on the nature of the material being examined. In other words, there is no fixed set of tools in use; a tool may be effective in some cases but not in others.

Generally, the most important tools used by the platform are those related to reverse searches for images and videos by breaking them down into frames for analysis. In addition to these, advanced search tools provided by social media companies—especially Facebook and X (formerly Twitter)—are critical due to the large volume of false information generated on these platforms. Tools like *Who Posted What* allow searching within these platforms using various fields, and reliance on other tools varies based on need. Furthermore, the platform utilizes tools made available through partnerships with other global platforms, such as Full Fact and AFP, which are among the earliest platforms dedicated to detecting fake news. These platforms have created specialized tools, some of which have been shared with fact-checking platforms worldwide, as stated on their websites.

It is also worth noting that multiple tools may be combined in a single fact-checking process, depending on the topic and content being analyzed.

**5.3 To what extent does Misbar rely on digital tools in its work? Has there been a noticeable difference between using digital tools for verifying fake news and not using them?**

Most employees are convinced that the nature of their work in the digital space necessitates the use of digital tools for verification and monitoring. As one of them put it: "In most of our work, we use them in most cases, and it is very rare that we do not use technical tools. We almost always use them because our work is technical." They argue that it is impossible to conduct fact-checking without relying on these tools. One employee pointed out that the speed at which fake claims are produced is far greater than the speed at which they can be verified without digital tools. Without them, fact-checkers would fall years behind the producers of fake news. However, it was emphasized that reliance on digital tools is not absolute but is determined by the nature of the false content, with a focus on keeping up with the development and production of new tools. Ultimately, the accuracy and quality of fact-checking depend on the sound reasoning and logic of the fact-checker.

It is evident that editors and fact-checkers at Misbar heavily rely on digital tools, particularly for detecting fake news in videos and images. Manual, traditional methods for dealing with fake news require significant time and effort—resources that are not available in an era where news, especially fake news, spreads rapidly. This challenge is compounded by the fact that fake news spreads faster than accurate news, as indicated by a 2018 study by Vosoughi, Roy, and Aral, which found that "false news stories are 70% more likely to be retweeted and spread faster, deeper, and more broadly than true stories across all information categories" (Rodríguez-Fernández, 2019). Therefore, fact-checkers in the digital space must employ a range of credible and efficient tools; this is not a choice but a necessity imposed by the global communication system and its outputs. It is easy to see the importance of these tools for both international and Arab platforms in fulfilling their duties.

**5.4 Are there artificial intelligence tools your platform relies on to monitor and detect fake news?**

Before discussing the use of artificial intelligence in detecting fake news, one of the

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respondents pointed out that Misbar is an intelligent platform supported by artificial intelligence. However, the benefit from this intelligence in writing is not extensive, although they sometimes use tools that can facilitate their work.

Half of the respondents identified some artificial intelligence tools that could assist in the process of verifying fake news, such as Full Fact AI. These AI tools help them monitor and transcribe videos. This was made available through the partnership between Full Fact and the [Arabic Fact-Checkers Network](#) from ARIJ, with support from the Google News Initiative.

One of the respondents also mentioned the use of AI-powered tools to search for AI-generated images. Additionally, specific AI features in the InVID tool, related to deepfake detection for images and videos, are used to confirm results and facilitate the search process.

Most respondents expressed a lack of trust in AI tools dedicated to detecting fake news through flaws in images or videos supposedly generated by AI. This is due to the fact that AI is not 100% accurate and has a significant margin of error. As a result, they often avoid using it to prevent mistakes, especially since their work requires precision and caution in using tools and relying on sources. However, some respondents noted that it is sometimes possible to use these tools to reinforce their findings if they have other evidence or indicators supporting their conclusions. Thus, it can be very useful if reviewed afterward. Nonetheless, the lack of trust in AI does not prevent platform employees from keeping up with updates and developments related to AI in the field of fake news detection.

To clarify further the mechanisms of detecting fake news by combining artificial intelligence and the fact-checker's expertise, one employee commented: "Sometimes, the program is up-to-date, and the material being analyzed is a video generated by AI. AI will give you a percentage indicating whether the image or video was generated by it. But the rest is up to you as a person, editor, or journalist. You should be able, with intuition, to verify whether the image itself contains certain errors or modifications. Through constant and prolonged review, you should know, for example, if a bird is entering the sky, clouds, and sunlight in a specific way. All these aspects are part of the verification process; it's not just the work of AI. Anyone can do this."

Recently, at the end of 2023 and into this year, major social media companies have begun taking serious steps to distinguish AI-generated visual content so that social media users are not misled. However, many claims continue to spread based on AI-generated images. One of the respondents stated that they do not consider AI tools to be working with them but rather believe AI tools work against them to a greater extent. "Because AI is advancing rapidly and outpacing us," as they put it.

It is noticeable from the respondents' statements that the reliance on artificial intelligence is very minimal compared to other tools available on the web, despite the existence of many applications in the field. The reason for this is that the work of fact-checkers is extremely sensitive and requires precision in every detail, which most AI applications do not provide. This is due to AI's inability to produce accurate results that can be relied upon in the process of detecting fake news. Additionally, the slow development of these tools contrasts with the rapid advancement of AI in the opposite direction—AI that generates and helps spread fake news. Current AI tools, one could say, work against digital platforms dedicated to detecting fake content rather than supporting them, as they significantly contribute to the creation of fake content, sometimes in ways that are difficult for even AI tools themselves to detect, even with human involvement.

However, this does not mean that fact-checkers at Misbar completely disregard artificial intelligence. It may be used as a complementary tool to support certain content that has already been verified as false, functioning more as a form of consultation rather than a primary resource. Therefore, the lack of 100% accurate results has diminished the effectiveness of these applications, leading to reduced reliance on them by the platform's employees.

It is also important to note that there are serious efforts being made by global fact-checking

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platforms, such as AFP in France and Full Fact in the UK, through AI research teams on their platforms. These efforts include either developing more effective AI applications or improving existing digital tools by incorporating AI features, as seen with the InVID tool, which has added smart features to enhance its capabilities.

**6. Study results**

- Misbar is among the first Arab platforms established to detect and investigate claims and fake news spreading on the web and especially on social media. Most of its employees are young, as observed from the selected sample, which had an average age of 28.5 years. This youthfulness reflects in their technical skills and digital expertise in using various digital tools while performing their tasks as fake news hunters, debunking claims across the platform's various social media accounts.
- There are no regulatory frameworks at Misbar that require employees to use a specific digital tool or artificial intelligence. What matters is the efficiency, effectiveness, and reliability of the tool. As a result, all fact-checkers at Misbar possess general and specialized technical expertise, allowing them to use a variety of digital tools with ease and efficiency in their tasks.
- There is a constant change in digital tools used to detect fake news due to the ongoing technological acceleration. It is common to discover a new tool based on the nature of the material being verified, and there is no consistent use of tools, as some are useful for certain topics, while others are not.
- Most platform employees do not abandon digital tools in their work, as these tools are indispensable, especially since their work is entirely in the digital space. They view the outputs of these tools more positively, especially when it comes to images and videos. However, this does not mean they rely on them completely; human judgment and intuition remain necessary for verification and detection.
- There are essential tools commonly used by fact-checkers at Misbar, such as InVID and Who Posted What, due to their effectiveness in providing acceptable and fast results. However, there is variability and difference in the use of other tools, depending on each team member's work style, specialization, and focus in verification, as well as the nature of the material being analyzed. Consequently, the team is built around the interests of all these employees.
- Google's search engine is one of the most resourceful platforms in providing digital tools used for detecting fake news. These tools include Google Operatives, Google Maps, Google Earth, Google Fact Check Tools, and Google Lens. Additionally, Google supports several initiatives in this field, such as its support for the ARIJ Arab network, which, in turn, supports Arab digital platforms by providing training for fact-checkers and offering digital tools for verification through partnerships with global platforms.
- Fake news is often designed to be convincing and more believable, making it difficult for machines to detect the falsehood within. AI is still limited in its ability to grasp the real intent of the content and struggles to understand the context in which the fake news was generated.
- There is a complete lack of trust among fact-checkers at Misbar in AI outputs related to detecting fake news. AI results alone cannot be relied upon to verify the accuracy of information and detect fake news. The process requires an understanding of the social context, political dimensions, and cultural factors behind the dissemination of fake news, a stage that AI has not yet reached. Therefore, AI cannot match the human ability to conduct critical analysis reliably in such cases.

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- The use and development of AI in the field of fake news detection may require significant investments in infrastructure and specialized human resources. This is something not available to all digital platforms due to the high cost of studies and research in the field, which may require years of experimentation. Additionally, there are ethical challenges to ensuring that these technologies are used responsibly and transparently.

**7. CONCLUSION**

In conclusion, this study has clearly demonstrated that the digital tools employed by Misbar's staff in detecting fake news are of great significance in combating misinformation and false claims circulating on the internet, particularly on social media. These tools have proven to be highly effective in analyzing large amounts of data, thereby facilitating the detection of sources and patterns related to fake news and enabling a more rapid and decisive response to its spread. However, when it comes to Misbar's reliance on artificial intelligence for detecting fake news, it is much lower than expected, due to several factors, the most important of which is the inaccuracy of the results obtained. This inaccuracy does not serve fact-checkers well, especially considering that every piece of information holds value and impact for them. Despite AI's tremendous analytical capabilities in monitoring information flow and identifying digital footprints of fake news, total reliance on AI is not currently an option.

**7.1 Study Recommendations**

- Initiatives for partnerships between Arab platforms for detecting fake news and global platforms or organizations with expertise and tools for verifying such news should be established. These initiatives would aim to Arabize the content of these tools for Arab fact-checkers, facilitating and speeding up their work. Additionally, the development of Arabic digital tools to aid the search and investigation process on Arab platforms specializing in combating the spread of fake news should be considered.
- Digital platforms involved in the development of artificial intelligence and other interested parties should work to gain the trust of fact-checkers, encouraging them to use AI more in their work. This could be achieved by providing rich and diverse training datasets, including real examples of both fake and accurate news, to enhance AI's ability to recognize different patterns and contexts.
- Initiatives to develop more effective, reliable, and accurate AI-based tools should be supported. Investing in AI offers a promising and effective solution to the challenges posed by the spread of fake news. Media organizations and relevant institutions should take advantage of these advanced technologies and continue to develop them to enhance the credibility of circulated information.
- Arab digital platforms should support and encourage individuals interested in combating misinformation and deception on social media by organizing remote courses and workshops to raise awareness about the tools and methods used in fighting this phenomenon. Misbar has already taken such an initiative on its official website.
- Regulatory measures and stringent laws are needed to limit the spread of AI used to propagate fake news, especially given the increasing frequency of its use and production. Rather than supporting AI that disseminates false content, concerned parties should promote initiatives aimed at raising public awareness about the dangers of fake news.
- The culture of using digital tools specialized in detecting false claims should be promoted among web users to create collective awareness and resilience against fake news.

Owners of social media platforms, particularly X and Facebook, should make greater efforts to filter content, as these are among the most frequently used sites for spreading fake news. This would assist fact-checkers in tackling the problem at its roots

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