



The role of digital platforms integrated with artificial intelligence technologies in detecting fake news “Misbar” platform as a model



Received: 28/12/2024; Accepted: 24/07/2025

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Abstract

This study aims to highlight the pattern of dual use of artificial intelligence and its role in the field of spreading and combating fake news and deep fakes by electronic platforms, in this descriptive and analytical study, we chose one of the most famous Arab platforms specialized in combating fake news and exposing deep fakes of all types, levels and degrees, it is “Misbar” platform, and this was done by applying the survey method using the content analysis tool on the platform’s website pages, the study reached a number of results, the most important of which are: “Misbar” website is a leading Arab platform in confronting fake news and detecting deep fakes, this is thanks to the commitment of the member work team to the highest journalistic standards and their professional use of various artificial intelligence techniques as an effective and counter-tool.

Keywords

Artificial intelligence ;
Fake news ;
Deep fake ;
Electronic platforms;
Misbar Platform.

الكلمات المفتاحية

ذكاء اصطناعي ؛
أخبار زائفة ؛
تزييف عميق ؛
منصات رقمية ؛
منصة مسبار .

دور المنصات الرقمية المُدمجة بتقنيات الذكاء الاصطناعي في كشف الأخبار الزائفة : منصة " مسبار " أنموذجاً ملخص

تهدف هذه الدراسة إلى إبراز نمط الاستخدام المزدوج لتقنيات الذكاء الاصطناعي ودورها في مجال نشر الأخبار الزائفة والتزييف العميق من جهة والتصدي لها عن طريق منصات إلكترونية متخصصة من جهة أخرى ، واختارنا في هذه الدراسة الوصفية التحليلية واحدة من أشهر المنصات العربية المتخصصة في محاربة الأخبار الزائفة وكشف التزييف العميق بكل أنواعه ومختلف مستوياته ودرجاته ، وهي منصة مسبار وهذا بتطبيق المنهج المسحي بأداة تحليل المضمون على صفحات موقع المنصة وتوصلت الدراسة إلى جملة من النتائج أهمها : موقع مسبار هو منصة عربية رائدة في مواجهة الأخبار الزائفة وكشف التزييف العميق وهذا بفضل التزام فريق العمل بأعلى المعايير الصحفية واستخدامهم الاحترافي لمختلف تقنيات الذكاء الاصطناعي كأداة فعالة ومضادة .

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I- Introduction

The great openness witnessed by the information and communication space in the world thanks to the widespread spread of new media integrated with artificial intelligence technologies and their use by the general public of users has contributed to a huge flow of news content via social media networks whose creators are trying to cover events and convey the daily concerns of citizens, however, these news stories often contain false, fabricated and manipulated information using artificial intelligence techniques, which falls under the category of fake news subject to deep fake technology and published intentionally or unintentionally.

In light of this current situation, it was necessary to involve digital platforms integrated with artificial intelligence technologies in detecting fake news; therefore, in this study, we decided to present a model of electronic platforms specialized in confronting fake news and detecting content subject to deep fake, which has become more severe in the era of artificial intelligence, which has given them extraordinary power in falsifying content and deceiving the public with its truthfulness.

Here, the role of “Misbar” platform emerges as a model in this field, the best way to defend is to attack, in other words, in order to deter and weaken the promoters of fake news and deep fakes who use artificial intelligence techniques to do so, it was necessary to use the same method and the same technology to investigate and scrutinize the fabricated content and expose it to the public, thus covering up the true news over the fake news.

Our study will also focus on the mechanisms of employing artificial intelligence technologies in the strategy of combating fake news, and this is done by presenting the most important technologies employed by the global Misbar website, which specializes in this process. Accordingly, we will try through our study to answer the following fundamental question: **How does “Misbar” digital platform, integrated with artificial intelligence technologies, contribute in detecting fake news?**

In order to answer this fundamental question, we will break it down into a set of sub-questions under which the objectives of this study fall as follows:

- What are the types of fake news that “Misbar” platform examines?
- What are the areas in which fake news and deep fakes are most prevalent?
- What are the most important artificial intelligence techniques used in deep fakes and spreading fake news?
- What is the strategy followed by “Misbar” website to confront fake news and deter deep fakes in the age of artificial intelligence?

This study seeks to achieve the following objectives:

- Knowing the types and classifications of fake news that “Misbar” platform examines
- Knowing the areas in which fake news and deep fakes are most prevalent
- Getting an idea about the most important artificial intelligence techniques used in deep fakes and spreading fake news
- Review the strategy followed by “Misbar” website in confronting fake news and deterring deep fakes in the age of artificial intelligence

The importance of this study is highlighted in:

- The topic of fake news and deep fake in the era of artificial intelligence is one of the current topics that require studies that clarify this reality, the repercussions, and the strategy for confronting and managing this media crisis with the least possible impacts and repercussions, this study is also considered an additional entry point for monitoring developments in the field of employing artificial intelligence technologies to confront all forms of falsification of events as a counter-strategy followed by platforms specialized in this field, such as the Misbar platform.
- The study is considered a contribution to discussing a very important topic that has not been sufficiently discussed and analyzed in scientific and media studies.

The approach followed in this study is to use the methods imposed by the importance of the study and its general objective¹, as it imposed the processing, discussion and then analysis of the topic of fake news and deep fake techniques in the era of artificial intelligence, which requires choosing the appropriate research method and tools raised by the problem, which are: the analytical survey method “which is considered one of the most prominent methodological methods in the field of media studies, which represents an organized scientific effort to obtain data and information about the phenomenon or group of phenomena under study”², we also benefit from this methodological method in studying the problem and breaking it down into its hierarchical elements to reach useful indications, accordingly, we resorted to using analysis and interpretation to draw logical conclusions to answer the study questions.

The research community for our study is all websites and electronic platforms specialized in the field of detecting fake news, which have recently begun to employ artificial intelligence technologies as a counter-strategy to confront this misleading content, we chose from among these platforms “Misbar” platform, which is considered one of the most famous and successful websites specialized in this field.

I.1. Overview about “Misbar” platform :

A leading digital platform has emerged in the Arab world in the field of combating the spread of fake news, which is “Misbar” platform, we will learn about it and its working mechanisms through the following: “Misbar” website is an Arab platform managed by a team of young experts in the field of new media for information and communication, who work diligently to examine the truth, expose lies in cyberspace, and combat misinformation, you can visit “Misbar” website via the following link : <https://misbar.com>.

“Misbar” began in 2019 as a fact-checking unit within Baaz, Inc.’s social media platform , from the beginning, this platform focused on reviewing social media posts on Baaz.com and verifying and classifying trending news for accuracy , at the end of 2019, “Misbar” became a standalone platform with a focus on fact-checking all social media platforms, specifically issues that could impact individuals and the general public in the Arab world.³

“Misbar” platform is managed by the editor-in-chief, the editorial team, and independent journalists, it is an independent team of 112 individuals who are not dictated what to write about or how to evaluate claims,⁴ by following the best practices and techniques for verifying fake news and deep fakes that have become widespread in the era of artificial intelligence, which is used on the one hand to spread fake news and on the other hand to detect and expose it within the framework of the theory of uses and gratifications that vary according to the patterns of use and the tendencies and goals of the audience using new media.

By reviewing the website of “Misbar” Agency on the Internet, we found that the site is designed in a professional, simple and interactive way at the same time, and supports the Arabic and English languages with various and diverse contents with Arab and international dimensions , the main interface of “Misbar” website consists of several regularly distributed sections, starting with verification materials that contain the latest developments related to fake news, as “Misbar” places the fake news as it was reported without addition or subtraction, while indicating all the pages and accounts that published the fake news, then the news is followed by a final result, either real or misleading content , in this case, after conducting the investigation and employing various artificial intelligence techniques, those in charge of “Misbar” website reach the correct information that occurred in its real context, and thus the fake news is denied and becomes ineffective.

I. 2. Types of fake news processed by “Misbar” platform

It is clear to us by reading the statistics of “Misbar” platform that the majority of the content classified by this website is misleading content out of context, with a number exceeding 8189 misleading news items, followed by false content with 2934, in addition to sensational content or what is known as “beuz” with 154 exciting content items, while “Misbar” website has monitored 112 satirical content items, 69 selective content items, and 29 myths since its launch.⁵

The misleading post carries partially correct information but is out of context⁶, such as demonstrations against a country's policy that may have occurred in the hundreds at a specific time and place, but the misleading post publishes news of the demonstrations but with old photos and videos documenting other demonstrations that were in the thousands at another time and place , as for the fake post, it is a post manipulated by artificial intelligence techniques and subject to deep forgery, where the sound, image, video and written text are replaced to deceive the public into believing the truth of the content that is in fact fabricated and has no basis in truth.

While the sensational post aims to create buzz, this type of fake news is exaggerated by its owners in conveying and inflating the news to create an atmosphere of panic and anxiety among the public in order to gain a large number of likes and comments and attract attention to the page that published this sensational content that contains exaggerated dates, numbers, statistics, developments and decisions⁷ , satirical content producers also aim for entertainment and comedy by employing artificial intelligence techniques that have developed dubbing, voiceover, and replacing faces and voices, where the person says what he did not say, but within a satirical entertainment framework, this content targets many fans and followers and does not intend to offend or harm, but it may cause annoyance to the person concerned.

Selective content is based on cutting statements to appear as if they are going in the opposite direction of what the person in question is saying, and this is what is used in propaganda campaigns directed against people, especially during election periods, meaning that fake news in this case does not change the voice and features of the person speaking, but rather uses montage to cut words, which causes disruption to the phrases and not displaying them completely, which takes them out of context , as for fake news that falls under the category of myth, they are illogical posts that are not accepted by the human mind and do not carry any amount of truth, published by their owners to gain likes and increase the number of followers, and are often based on myths and primitive beliefs.

I. 3. Areas of fake news dissemination treated by “Misbar” platform

There are many areas of fake news that “ Misbar” website team deals with, and we review them according to several variables and classifications as follows:

It seems to us from the platform's statistics that the five countries with the most fake news, which are monitored by “Misbar” website, are Egypt, which ranks first with about 1082 fake news, followed by Palestine with 1040 fake news, then Tunisia with 605 fake news, then Algeria with 571 fake news, and finally the United States of America with about 544 fake news , to explain these results, we say that these five countries are witnessing many political, economic, sports and social events and are characterized by great media openness, whether in old or new media, which is why fake news is abundant around them.

The majority of the content monitored by “Misbar” is news with 47%, followed by politics with 20%, while sports came in third at 11%, then culture and arts at 4%, and other fields in which fake news is published are distributed at 17% , accordingly, the fake news examined by “Misbar” is comprehensive of all areas of media, political, economic, cultural, sports and religious life without exception, and this is reflected in the various publications that “Misbar” deals with daily.⁸

The most frequently used keywords in the fake news monitored by “Misbar” website are distributed recently according to the core issue that characterizes the Arab region, which is the Zionist aggression on Gaza, therefore, we found three words specific to this topic: the war on Gaza, the flood of Al-Aqsa, and Palestine, the rest of the keywords are distributed between the countries of the Maghreb and the Gulf, in addition to Russia in the context of its war on Ukraine. Recently, Syria occupied the top spot after the overthrow of the Assad regime, in addition to the global sporting event organized by Qatar and to be organized by Saudi Arabia, which is the World Cup, which was accompanied by a large amount of fake news.

I. 4. News Verification Process According to “Misbar” Index

Verifying news takes a long time, and requires extensive efforts to scrutinize sources to verify whether a claim is true or false⁹, often, a false claim has become popular by the time it takes journalists to verify its veracity, so its spread harms users even though the result of the verification will clarify its truth, announcing the falsity of a claim does not necessarily mean preventing it from spreading further.

Here comes the role of “Misbar” Index, in determining the degree of credibility of the source for the reader, in a way that combating fake news is not affected by the time factor as is the case with verifying a specific news item, by counting the number of false claims published by the source during a specific period of time, which “Misbar” team verified and revealed their truth .

Thus, “Misbar” Index allows users to distinguish between reliable sources and those that publish false claims and promote fabrications, in order to explain the color gradation that distinguishes each site from another, we will review below the evaluation guide that “Misbar” website relies on to measure the degree of credibility of the news site and the percentage of its publication of fake news.

The level of credibility of the sites that “Misbar” team deals with in investigating fake news varies, when the percentage of fake news is low, the level of credibility is very high and is symbolized by the color green and the letter A, , the direct relationship between these two variables continues through the high level B and the color blue, then the medium level C in yellow, while the low level is symbolized by the color purple and the letter D, and finally we find the very low level with the letter E in pink color , in this regard, “Misbar” website provides a special window to search for any news site to measure its credibility level according to the number of fake news that “Misbar” team has monitored on the pages of this site.¹⁰

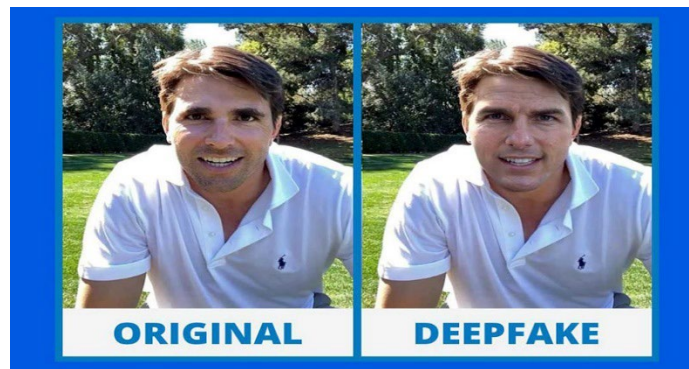
I. 5. Artificial intelligence techniques used in producing fake news according to “Misbar” platform

By reviewing the archives of “Misbar” website , reading and watching the examined articles and videos, we have become aware of the multiple artificial intelligence techniques used by the creators, producers and publishers of fake news, and we can summarize them as follows:

A. Face replacement techniques:

It is one of the most used techniques by fake news publishers and is based on implanting one person's face into another person's features with high accuracy¹¹ , the faces of famous figures in the fields of sports, politics, economics, media, art, culture and religion are often used, which makes the character in an unnatural position or say unusual things , Face replacement technology can be used on photos and videos, the most important artificial intelligence applications used in this regard are Photo Lab, Face App, Face Magic, Face Play, and other applications specialized in changing facial features , according to “Misbar” website, most of the fake content was for blackmailing advertising purposes, on the one hand, the face of an artist or athlete is used to advertise products or he is blackmailed and his reputation is tarnished with immoral content.

Image No. 01: A screenshot from a fake video showing the face of American actor Tom Cruise being replaced with a normal person.

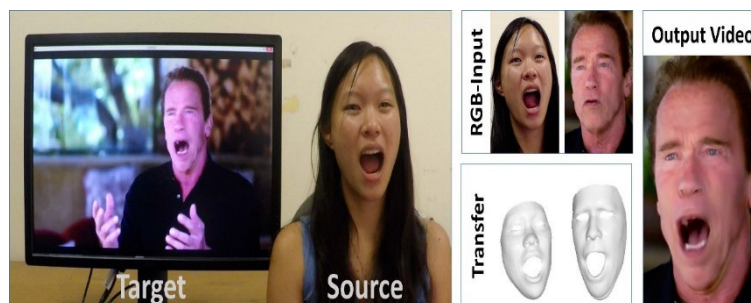


Source : <https://annabaa.org/arabic/informatics/29788>

B. Face Reenactment:

“Misbar” team also monitored fake content whose owners reconstructed the face by implanting gestures or movements that the target did not make, the facial movement is transferred from another person and implanted in the target person, who is often a famous face, among the applications used in face reenactment, we find the Face Changer application, which gives its user the option to either change only some gestures or replace the face completely.¹²

Image No. 02: a photo showing the re-enactment of the American actor Arnold Schwarzenegger face by manipulating gestures without affecting the target identity.



source : <https://justusthies.github.io/posts/face2face>

C. Face generation:

This method involves creating completely new images of faces using generative adversarial networks (GAN),¹³ here, these applications generate imaginary faces that do not exist in reality, and here, the creators of this content often use the famous website specialized in making and creating faces <https://generated.photos/face-generator>.

Image No. 03: Shows a group of artificial faces that do not exist in reality.



Source: <https://www.perfectcorp.com/consumer/blog/generative-AI/ai-face-generator>

D. Speech synthesis:

This is a relatively new branch of deepfake, which involves speech synthesis and creating a model of someone's voice¹⁴, which can read the text in the same manner, intonation, and rhythm as the target person, some speech synthesis sites, such as Modulate.ai, also allow users to choose the voice of a person of any age and gender, rather than simulating a specific target.

I. 6. Artificial intelligence techniques used by “Misbar” platform team to detect fake news

We move on to the methodology of combating fake news and exposing deep fakes, which was one of the main reasons for establishing “Misbar” platform, we can summarize this strategy as follows:

“Misbar” website works with experts with different specializations, orientations, backgrounds and perspectives, and relies only on articles and reports taken from reliable sources, if we have doubts about a claim, we work to communicate with the claimant to present arguments and give him the opportunity to clarify his point of view, “Misbar” is keen to present diverse opinions that reflect differences with clarity, transparency and balance, “Misbar” invites you to refute any misleading claims, by participating in a systematic research to verify the validity of the claims whose credibility is questionable.

To find claims, the editorial team and journalists search for posts, shares, videos, and photos to verify their authenticity, with social media posts, letters, and news readings, “Misbar” works with a network of writers, “fake news hunters,” from different countries and backgrounds, readers send suggestions to the platform via email to editor@misbar.com and can submit claims via the contact form at <https://www.misbar.com/submit>, the team receives many claims that need to be verified through our social media accounts. After all this, the most important and worthy claims are selected for verification, “Misbar” works with a network of writers, “fake news hunters,” from different countries and backgrounds, readers send suggestions to the platform via email to editor@misbar.com and can submit claims via the contact form at <https://www.misbar.com/submit>, the team receives many claims that need to be verified through our social media accounts, after all this, the most important and worthy claims are selected for verification.

There are important points that “Misbar” team focuses on when choosing a claim:¹⁵

- Does the claim/news appear misleading or false?
- Is the claim/news important? We avoid unimportant claims.
- Is the claim/news likely to be repeated and republished by others?
- Is the claim/news verifiable? We do not examine opinions

In order to verify the truth or falsehood of the news reported or monitored by “Misbar” team, the following should be followed:¹⁶

- Use Internet tools such as Google reverse image search to determine the origin of the circulated image or video clips and also to verify whether the same image or video clip was used previously in similar or different contexts.
- Conduct a thorough search on the Internet using all filters (date, time, location, keywords, etc.), in order to reach the origin of posts, messages and news circulating in the digital space.
- Communicate with local authorities in the event of a rumor spreading to find out its truth, especially those that society is sensitive to.
- Review texts, images and video clips to find out whether the information attributed to public figures is true or fabricated.
- Refer to official data sources to verify dubious allegations.
- Communicate with public figures who are attributed with statements, or about whom false news is circulated, or about whom photos and videos are fabricated, and verify the authenticity of what is being circulated.
- If necessary, consult specialists in the subject we are verifying.

Among the skills that “Misbar” team relies on to detect deep fakes are the following:¹⁷

- Is the face originally smooth? Are there shadows of cheekbones out of place?
- Do the eyelid and mouth movements appear unrelated or unnatural in some way?
- Does the hair - especially facial hair - appear fake. It is difficult for current deep fake technologies to maintain the original appearance of hair (especially facial hair)
- Ask yourself what message the person is sending: Is it to disavow vaccines, for example, or is it a pornographic clip? Anything that appears unusual, normal, or contradicts collective knowledge is usually related to deep fakes.

In this regard, we provide some tips to help you investigate "deep fakes", first, watch the clip carefully and do not rush to publish it, ask yourself the question: is this clip real? could it be fabricated?¹⁸ If you are in doubt, do not publish it or send it to anyone, in case of doubt, you should search for the same story or clip from different but trustworthy sources on the Internet, finding a similar story will help you get a handle on the real story, if you are in doubt about an audio clip, image or video clip, enter this part into the Google search engine or the DuckDuckGo search engine and then search for another similar version. Then you can compare the two versions.

Spotting and detecting some signs of manipulation is a bigger challenge, but there are some aspects that can help in the matter, such as the presence of inconsistent shots or a change in the tone or quality of the voice, etc., no matter how small, they may be useful. You should trust your visual and auditory senses and always ask yourself: does it make sense? , you should remember that it only requires a lot of concentration and you may need to ask someone else to help you

identify the places of manipulation, which may be simple things such as the nose, ear, teeth and their degree of whiteness, or even the hairstyle and whether it looks identical, you may need to watch the clip at a frame rate to detect the inconsistencies, while you can use, for example, the media player "vlc" or the website watchframebyframe.com.

Also, zoom in on the mouth and lip movements and compare them to the original version to discover the synchronization of lip movements, and does it seem logical? enhance auditory and visual skills, it is clear from all of the above that it is all about the human senses, especially auditory and visual skills, and fortunately these abilities can be enhanced, through this training, you can improve your hearing and vision skills to detect any manipulation in the image or sound.¹⁹

The risks of deep fake technology depend on the way we consume the Internet, as a person sees a lot when browsing the web and social media sites and is not always sure what he publishes or shares and whether it is real or fabricated?, As for societies suffering from a state of polarization, deep fake technology is a great opportunity to trick people into believing certain things.

With the spread of fake and fabricated images on social media, it has become necessary to verify their authenticity. And because this is not an easy matter, "A picture is worth a thousand words" is a phrase used to emphasize the importance of the image in conveying news, especially when disasters or fighting occur in order to demonstrate the ferocity of the event, especially if it concerns news stories that are unbelievable but true, accordingly, the image is the decisive factor in convincing the viewer or reader that this unique or exceptional event has actually occurred.

For example, the massive fire that destroyed the famous Notre Dame Cathedral in the French capital, Paris, could have been just a rumor that spread on social media, but with the emergence of images of the fire breaking out in this famous French landmark, it is no longer possible to say that this news is a rumor, however, in many events, we notice that people deliberately try to include old images or use manipulated images or even use images in which the elements that will appear in them were prepared in advance, perhaps to achieve a specific goal or to attract attention.

In light of this, "Misbar" website provides some methods that may help verify the authenticity of images according to what is practiced on "Misbar" website, and is the image fake or real?, it has now become easy to manipulate and process images thanks to programs and applications for editing, modifying and improving images, therefore, first of all, when in doubt about an image, you must trace the origin of this image and whether it has been published before or not?, the "reverse image search" technology is one of the fastest ways to find out the origin of the image, as it helps to find out whether the image has been used before, and if so, you can find out the time and method, perhaps the following example is more realistic to clarify the matter, let us assume that an earthquake struck Pakistan and as a result, many people published pictures of the destruction it caused.

In case of doubt about any image, it can be saved on the computer, then downloaded and sent to one of the programs specializing in "reverse image search" technology, or paste the image title and request a search to find out whether the image is actually from the disaster area hit by the earthquake in Pakistan or not, it does not stop there, but it is also possible to know whether the image was taken on the same day that the earthquake struck Pakistan or if the image is old and was taken days, months or even years ago, it is also possible to know whether the image has been tampered with through programs and applications for editing and modifying images or not, there are many free sites specializing in "reverse image search" technology, but the most famous of them are three: it is the most famous tool in reverse image search because it includes two main features:

- The first is characterized by Google's large database, Google is the most popular search engine in the world over the years, so the chances of knowing the origin of the image are greater.
- The second advantage is that Google has facial recognition technology that makes searching for pictures of people much easier. The technology also allows the pictures to be classified and sorted by size and enlarged to see the finest details.

Yandex and TinEye are good alternatives for reverse image search, but it is better not to rely on one search engine. Yandex is the Russian competitor to Google, but it can give different and perhaps better results, especially when it comes to images from Russia, TinEye has a great feature, which is the ability to sort search results by date, which helps to know the time when the image was uploaded, however, this engine, like others, cannot determine the time when the image was first posted on Facebook or Instagram, but rather it is limited to sharing on the Internet or the X site.

InVID We Verify is a tool that combines all the features and functions of relevant image search engines and this plugin can be downloaded to your browser, this app has some great additional features when it comes to verifying images such as an image magnifier and metadata analysis, this app also includes tools for investigating whether an image has been tampered with or not, or what is called "image forensics", be very careful with "screenshots", caution does not stop with images, but it should be when it comes to "screenshots" as they can be manipulated and taken out of context, as for social media, a screenshot is not conclusive evidence that a tweet or post is real, as the text of any tweet can be easily processed using the source code without the need to use an image editing program, however, the manipulated screenshots do not appear on the victim's original account, but can be posted to appear as if they are real even though they are fabricated likewise any statement can be added to any social media account.

"Misbar" website also employs other artificial intelligence techniques that play an important role in detecting deep fakes, which can be summarized as follows:

A. Deep Neural Networks:

TensorFlow and PyTorch are examples of free tools that use deep neural networks to detect deepfakes, they can be used to analyze images, videos, and audio signals to detect signs of manipulation, all users have to do is upload examples of real and fake media to train the detection model to distinguish between the two, "these networks can learn from massive amounts of data to identify inconsistencies in facial expressions, movements, or speech patterns that may indicate a deepfake,"²⁰ Jonathan explained, adding, "Machine learning algorithms can be trained to analyze and detect patterns in videos or images to determine whether they have been manipulated or generated by deepfake techniques."

B. Deepware:

Deepware is an open-source technology primarily dedicated to detecting AI-generated videos, and there's a scanner on the website that you can upload videos to see if they've been artificially manipulated, like other deepfake detectors, Deepware's models look for signs of facial manipulation, and the tool's main shortcoming is that it can't detect voice-swapping techniques, which are more dangerous than face-swapping, "the result isn't always 100% accurate, and sometimes it's easy depending on how good the fake is, the language used, and a few other factors,"²¹ said editor-in-chief Maywa Tijani.

C. Sensity Technology:

Sensity specializes in deepfake detection and AI-generated image recognition, and advanced machine learning models can be used to analyze visual and contextual cues to identify AI-generated images, the tool is not free, and fees are determined based on monthly usage and individual areas of interest.

D. Hive technology:

Independent fact-checkers and internet users can use Hive technology to quickly scan digital text and images for authenticity, to verify an image, users upload a file to the AI-generated content detection page for quick processing, there is also a Chrome extension for the Hive AI detection tool, which can be added to a computer and allows users to detect AI-generated text and images via the browser for free.

E. Illuminarty technology:

Illuminarty also offers the ability to detect AI-generated images and texts, and the free version includes basic services, while the premium plans of the tool provide more functions, with this tool, users can determine where the fake image was manipulated, from which AI model it was generated, and it can also assess the likelihood of an image being generated by AI, all of these tools can help users identify and combat deepfakes,²² but they are often inaccurate. Jonathan explained that there is always the risk of false positives or false negatives, where legitimate content could be mislabeled as deepfake or vice versa, therefore journalists and independent fact-checkers can detect deepfakes by critically monitoring the content, as not all AI-generated images and videos are perfect, and many can still be detected by looking at them carefully.

We must emphasize that there is no guaranteed way to verify the authenticity of images and detect manipulation completely, so it is recommended to use several methods and search engines to ensure that the image is real and has not been manipulated, and also to compare the search results, in short: If you have any doubts about a particular image, you should apply one of the tools mentioned above and examine the background of the matter to ensure that the image is real and may be the image. However, if doubts persist, do not publish this image until you can verify its authenticity to avoid anyone else falling into the trap of this "fabricated image".

II- Results and discussion :

Through our analytical study of "Misbar" website, which specializes in combating fake news and exposing deep fake content, we reached a number of results that can be summarized as follows:

- "Misbar" website is a leading Arab platform in combating the phenomenon of fake news and deep fake
- The work team believes that their commitment to the highest journalistic standards and their use of various artificial intelligence technologies will constitute an effective tool in combating fake news.
- "Misbar" platform has a global Arab dimension, as it does not only follow up on fake news published on the Arab level, but also extends beyond the Arab region to all countries of the world.
- "Misbar" platform recruits more than 112 individuals in the work team, distributed between the editor-in-chief, editors, fact-checkers, content writers, public relations officers, video producers, software and smart application engineers, translators, researchers and academics who contribute to the platform's work.

- “Misbar” is an interactive multimedia platform that combines written, audio, visual and electronic text files, which enables it to monitor the largest possible number of fake content.
- Due to the credibility and fame of “Misbar” website, it attracts the attention of advertisers, and this is what we find through the advertising flashes that intersperse the pages of the platform's official website on the Internet.
- “Misbar” website measures the credibility of Arab electronic news websites, and this is through the percentage of fake news issued by these websites, the percentage of credibility ranges between very high, high, medium, low, and very low. This classification is intended to encourage Arab websites to avoid publishing unverified news.
- “Misbar” website allows the user to evaluate any Arab or international website according to the degree of credibility by entering the name of the website in a special window that gives the results immediately.
- “Misbar” website encourages the public to participate in the campaign to combat fake news by allocating a window to report any suspicious content, and when the reported content reaches the site administration, the team moves to investigate the credibility of this circulating news.
- The contents that “Misbar” website verifies are divided into: misleading, false, sensational, satirical, selective and mythical contents.
- The five countries with the most fake news, according to what “Misbar” website monitors, are: Egypt, which ranks first with about 1082 fake news, followed by Palestine with 1040 fake news, then Tunisia with 605 fake news, then Algeria with 571 fake news, and finally the United States of America with about 544 fake news.
- The majority of the content monitored by “Misbar” website is news at 47%, followed by politics at 20%, while sports came in third at 11%, then culture and arts at 4%, and other fields in which fake news is published are distributed at 17%.
- Fake news increases significantly during times of economic and financial crises, political crises and wars, health crises such as diseases, epidemics and pandemics, and environmental and natural crises such as earthquakes, floods, hurricanes, volcanoes, and others.
- Among the most used AI techniques in producing and spreading fake news and deepfake content monitored by “Misbar” team are face replacement techniques by implanting the face of a famous person into the face of an ordinary person to be used for advertising or blackmail purposes, in addition to face reenactment techniques that change the gestures, features and expressions of the target person’s face to appear in unfamiliar shots, in addition to face creation techniques that create facial features that do not exist in reality, and finally speech synthesis techniques that tell the target person what he did not say thanks to manipulation and cloning the tone of voice in a way that appears real.
- In order to verify the authenticity of the news circulating on social media, “Misbar” team makes contacts with official bodies authorized to confirm or deny the news as a supportive measure in examining the credibility of contents.
- Among the most important techniques employed by “Misbar” website to detect fake news and deep fake content are human intelligence and the examining eye, here, the person in charge of the verification process asks whether this content is real or fake? this is done by comparing real photos and videos of the targeted person with the current video, does he appear with the same features? are the facial muscles and beard hair coordinated? is the movement of the cornea normal or is it fixed and immobile and does not interact with the tone of voice, which also remains the same tone? these are all questions posed by human intelligence before we move on to artificial intelligence techniques that also help confirm the forgery process.
- Among the artificial intelligence techniques employed by “Misbar” team to detect fake news is Google's reverse image search technology to determine the origin of the circulated image or video clips and also to verify whether the same image or video clip was used previously in similar or different contexts.
- “Misbar” team uses search engines specialized in the process of verifying images published on social media networks such as Yandex, TinEye, and InVID We Verify.
- “Misbar” team deals with a high degree of caution with screenshots that may not be evidence of the veracity of the circulated news due to applications that manipulate texts and images.
- “Misbar” team employs accurate online search technology using all filters (date, time, location, keywords, etc.) in order to reach the origin of fake news.
- In order to verify the content “Misbar” team relies on watching the clip scene by scene to discover inconsistencies, while you can use, for example, the "vlc media player or the watchframebyframe.com website.

- “Misbar” team relies on smart applications such as TensorFlow and PyTorch as free tools that use deep neural networks to detect deep fakes, and they can be used to analyze images, videos and audio signals to detect signs of manipulation.
- “Misbar” team has extensive experience in dealing with anti-deep fake applications such as Deepware technology, Sensity application, Hive program and Illuminarty virtual assistant, all of which specialize in examining content and detecting any manipulation of texts, images and videos.
- After verifying the veracity of the news published on social media, “Misbar” team begins the editing process and publishing the content on the site’s platform, in a specific and systematic order, news begins with a prominent title that denies or confirms the alleged news, after which the name of the editor of the investigation and the date of its publication are written, and a comprehensive image of the event is displayed under the title of the event, news is presented as it was circulated on social media, then the appropriate description of the circulated news is given, either misleading, false, sensational, sarcastic, selective, myth, or true, after that, news is presented as it is in reality, without addition or subtraction, with the information supported by official sources.

III- Conclusion:

It is clear to us from this research paper that the new media of information and communication have given the public the possibility of participating in the production and dissemination of news content, thanks to the interactive communication advantages of these media, this participation could have been an alternative media that conveys the voice and image of society as it is to the media in order to achieve ambitions and needs and develop human life in all its areas, however, there are intruders in the space of citizen journalism who have distorted the image of this social media trend because of fake news and content they publish that is subject to deep fake techniques.

Accordingly, social media networks have become a space teeming with fake news and deep fake content that is published by its owners to achieve specific and pre-determined goals within several strategic procedures and steps, we can also find fake news published unintentionally and without the intention to cause harm, in both cases, there must be a strategic approach to confront fake news and limit its effects and dire repercussions on the local, regional and international communication space.

The role of specialized platforms in exposing fake news is also highlighted by employing artificial intelligence technologies as a counter-strategy, in our study, we chose “Misbar” platform as a leading Arab platform in this field, our analytical study of “Misbar” website showed us that it has contributed significantly to exposing and revealing tens of thousands of fake news and blowing it up with correct news that enlightens public opinion and reduces the dire effects and repercussions of fake news and deep forgery that have developed further in the era of artificial intelligence, at the end of our study, we had to present a set of recommendations and proposals that would enhance the strategy to confront fake news and deep forgery in the local and global media space, we will review them below:

- Obtain news and information from their original sources, and be sure to follow them from various media platforms.
- Do not accept claims from unreliable sources, and doubt the information they promote and verify its authenticity.
- use various search tools on the Internet to find out the origin of images and videos of questionable authenticity, such as using filters for date, place, time, keywords, etc.
- Verify the authenticity of social media accounts, verify information attributed to official bodies, and statements and positions of public figures on their official pages and accounts.
- Be careful when following up on news details, because misleading often depends on providing correct information but taken out of context.
- Ask about the identity of the writer of the post on social media, and who specifically benefits from publishing this content, and whether he omitted any important information related to the topic; the questioning approach will help you uncover the truth.
- Check the quality of the content, whether it is text, image or video, if the quality is low, i.e. it contains spelling errors, for example, or provides information without citing its sources, then this requires doubting the credibility of that content.
- Pay attention to the way the content is presented, if it is not professional, we must scrutinize its content more.
- Beware of believing shocking news, i.e. news that contains exaggerated elements, as fake news promoters often seek to provoke an intense emotional response in the recipient.
- Pay attention to the context of the news and whether it is in the midst of a media war, i.e. if the publisher represents one party and the news he is promoting targets the other party, in this case we must be careful that the news is not part of a political propaganda campaign.

- Be accurate in the information provided before major events and occasions, such as elections and sports tournaments , also in the news related to celebrities, politicians and public figures.
- To take our orientations and partisanship into account when judging the truth of a piece of news. We will most likely tend to believe what is consistent with our convictions and in line with our view of the world, and reject what contradicts our beliefs and opinions.
- Develop critical thinking skills and activate them in the face of fake news, by examining the arguments on which the claim is based and trying to refute them by calling for hypotheses that differ from those on which the news is based, it is also important to evaluate evidence in a rational manner, and adopt scientific approaches in looking at everything published in the digital space.
- Read about the nature of fake news and its methods of promotion, and understand its impact on awareness and its dangers to the future of culture and knowledge, and the damage it can cause to various aspects of human life.
- Don't just rely on the title, most of the time, article and news titles aim to attract readers by any means, even if deception is one of those means. Therefore, we must always make sure to read the entire news and all the arguments it presents.
- Look at the publication date , news, like many other things, goes through a cycle of repetition, emergence and decline, therefore, we must always pay attention to the publication date, which may lead to misleading information or a change in the context of the published news, if the news is old, for example, and has been recirculated.
- Check the credibility of sources: media outlets usually rely on sources from which they obtain news or analyses, such as news agencies, research centers, experts, etc, we must always try to check the credibility of these sources, when a media platform reports news about research conducted by a “Canadian research center,” for example, without mentioning its name or the full name of the research, this is an indication of the falsity of the news, or random transmission from secondary sources, and not the research center itself, at the very least.
- Sources may refer to unknown news pages and platforms, so we should always check the “Contact Us” or “About Us” sections on these sites, as these sections contain important information that helps verify the identity of the site’s administrators and their journalistic experience, in addition to the media organization’s editorial policy. For example, satirical news sites are often a source of news that their publishers claim is true.
- Diversify news sources, if we come across a piece of news that attracts our attention, we must try to take a look at other sources that talk about it before we are convinced by it, as the publisher of the first piece of news may be mistaken or fake without us knowing.
- Ensure that there is credible evidence, the media and some social media posts often cover breaking events and news, such as an armed robbery through a video clip, it is easy to present any evidence, and it is easy to modify it to suit a specific purpose, therefore, we should always examine the evidence presented to us in the news, and question its accuracy by searching for the news in more than one source, and cutting the video into still clips that we search for through the image search feature on Yandex or Google, we must not forget that the form and type of evidence differs, the evidence may be an eyewitness to the event, in which case we rely on the history of the publishing media platform and its credibility, while maintaining doubt and not completely accepting.
- Following fact-checkers keeps us informed about fake news, and the most important promoters of lies and forgers , It protects us from believing rumors and news that may harm us and our society, therefore, it is recommended to follow “Misbar” and other news-checking sites.
- Everyone has biases. When we become aware of our unconscious biases and develop a critical sense of the most logical news to us, we reduce the possibility of being deceived by fake news. People usually feel reassured by news that aligns with their beliefs and ideas, or that they think at first glance is logical news. Therefore, we must be critical and rethink all the posts and news we come across on the Internet, so as not to spread fake news and contribute to its reinforcement.
- Resist the urge to publish, sometimes, a post or news item may be attractive and may generate interaction from our friends and loved ones, this is a justified human desire, but we must resist it and think before publishing any news or post that may contain false or misleading news, and follow the steps mentioned above before sharing.

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