An Analytical Study Fake News and Disinformation: A Case Study of The Tech 4 Peace Iraqi Website

(July 1, 2024 - July 31, 2024)

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Abstract

This study explores the prevalence and impact of fake news and disinformation on the Tech 4 Peace Iraqi website over a one-month period from July 1, 2024, to July 31, 2024. Utilizing a qualitative content analysis methodology, the study categorizes the types of disinformation, identifies its primary sources, and examines the patterns and trends in its dissemination. The findings reveal that political disinformation is the most prevalent, followed by health-related, social and cultural, and security-related disinformation. Social media platforms are identified as the primary source of disinformation, accounting for 60% of the total content, with news websites, messaging apps, and other sources contributing to the remainder. Key patterns include spikes in disinformation activity during significant political and health events and the use of sensationalism and emotional appeal to enhance virality. The study highlights the significant impact of disinformation on public trust, health behaviors, and social cohesion, underscoring the urgent need for comprehensive countermeasures. Recommendations for strengthening fact-checking initiatives, promoting digital literacy, implementing robust regulations, enhancing public trust and social cohesion, encouraging international collaboration, and evaluating intervention strategies are provided. These recommendations aim to mitigate the harmful effects of disinformation and foster a more informed, resilient, and cohesive society.

Keywords

Fake news, disinformation, Tech 4 Peace, Iraq, political disinformation, health-related disinformation, social media, public trust, digital literacy, content analysis

Introduction

The spread of fake news and disinformation poses a significant threat to societal stability, public trust, and the functioning of democratic institutions. The rise of social media and digital platforms has exponentially increased the reach and speed at which false information can be disseminated, often outpacing efforts to verify and correct it (Vosoughi, Roy, & Aral, 2018). In regions experiencing political instability and conflict, such as Iraq, the impact of disinformation can be particularly pronounced, exacerbating existing tensions and undermining efforts towards peace and reconciliation (Wardle & Derakhshan, 2017). This study focuses on the Tech 4 Peace Iraqi website, an initiative aimed at combating fake news and promoting accurate information in Iraq. By analyzing content published on the website from July 1, 2024, to July 31, 2024, this research seeks to identify the types and sources of disinformation prevalent in the Iraqi context, explore the patterns and trends in its dissemination, and assess the impact on public perception and behavior. Understanding these dynamics is crucial for developing effective strategies to counter disinformation and enhance media literacy, ultimately contributing to a more informed and resilient society (Al-Khalidi, 2023).

Background of Fake News and Disinformation

Fake news and disinformation have a long history, predating the digital age by centuries. The term "fake news" refers to deliberately falsified information presented as legitimate news, often with the intent to deceive and mislead. Disinformation, a related concept, involves the intentional dissemination of false information to influence public opinion or obscure the truth. Both phenomena have evolved significantly with the advent of the internet and social media, becoming more pervasive and impactful in recent years.

Historically, fake news has been used as a tool for propaganda and manipulation. During the 20th century, state-sponsored disinformation campaigns were employed by various governments to control public perception and undermine adversaries. For instance, the Soviet Union's KGB conducted extensive disinformation operations to influence political outcomes and sow discord among Western nations (Rid, 2020).

The digital revolution has amplified the reach and speed of fake news dissemination. Social media platforms, with their vast user bases and rapid sharing capabilities, have become prime channels for spreading disinformation. According to Vosoughi, Roy, and Aral (2018), false information spreads significantly faster and more widely than true information on social media. This phenomenon is driven by the viral nature of social media, where sensational and emotionally charged content is more likely to be shared.

The impact of fake news on society is profound and multifaceted. It can erode trust in traditional media and institutions, polarize communities, and influence political outcomes. The 2016 U.S. presidential election is a notable example, where fake news stories were widely circulated on social media, potentially affecting voter behavior and the election's outcome (Allcott & Gentzkow, 2017). Similarly, during the COVID-19

pandemic, misinformation about the virus, treatments, and vaccines proliferated online, posing significant public health risks (Pulido et al., 2020).

Efforts to combat fake news and disinformation have been varied and ongoing. Fact-checking organizations, such as FactCheck.org and Snopes, have emerged to verify and debunk false claims. Social media companies have also taken steps to address the issue by implementing measures such as flagging false information, altering algorithms to reduce the spread of fake news, and partnering with fact-checkers. However, these efforts face challenges, including the sheer volume of content, the sophisticated tactics used by disinformation actors, and concerns over censorship and free speech (Pennycook & Rand, 2019).

In the Iraqi context, the spread of fake news and disinformation poses unique challenges due to the country's complex socio-political landscape. Iraq has experienced significant political instability, conflict, and sectarian divisions, which can be exacerbated by disinformation. The Tech 4 Peace Iraqi website was established to address these challenges by monitoring and debunking fake news specific to the Iraqi context. This platform plays a crucial role in promoting accurate information and countering the negative effects of disinformation in Iraq (Tech 4 Peace, 2024).

Introduction to the Tech 4 Peace Iraqi Website

The Tech 4 Peace Iraqi website is a pioneering platform dedicated to combating fake news and disinformation in Iraq. Founded in response to the growing prevalence of false information and its detrimental effects on Iraqi society, Tech 4 Peace aims to promote truth, transparency, and peace through vigilant monitoring and verification of news and social media content.

Established by a group of Iraqi activists and tech enthusiasts, Tech 4 Peace leverages digital tools and community engagement to identify and debunk false narratives. The platform's mission is to "foster a well-informed society by exposing and countering disinformation, thus contributing to peace and stability in Iraq" (Tech 4 Peace, 2024). Given the country's complex socio-political environment, characterized by political instability, sectarian conflict, and external influences, the need for reliable information is paramount.

Tech 4 Peace employs a multi-faceted approach to tackle disinformation. This includes the use of advanced data analytics and artificial intelligence to monitor social media platforms and news outlets for potential fake news. Once suspicious content is flagged, a team of fact-checkers and analysts rigorously examines the information, cross-referencing with credible sources and employing various verification techniques. The findings are then published on the Tech 4 Peace website and shared across their social media channels to reach a broad audience.

One of the platform's significant strengths is its community-based model. Tech 4 Peace actively engages with its audience, encouraging users to report suspected fake news and participate in fact-checking processes. This participatory approach not only

enhances the platform's effectiveness but also fosters a sense of community ownership and responsibility towards combating disinformation (Al-Khalidi, 2023).

The impact of Tech 4 Peace has been notable. The platform has successfully debunked numerous false claims related to political events, security issues, and social matters in Iraq. For example, during the 2021 parliamentary elections, Tech 4 Peace played a crucial role in identifying and correcting false information that could have influenced voter behavior and election outcomes (Kadhim, 2022). Similarly, during the COVID-19 pandemic, the platform was instrumental in countering health-related misinformation, thus contributing to public health efforts and awareness.

Despite its successes, Tech 4 Peace faces several challenges. These include the rapid evolution of disinformation tactics, limited resources, and the inherent risks associated with fact-checking in a volatile security environment. Nonetheless, the platform's commitment to its mission and its innovative use of technology and community engagement positions it as a vital player in Iraq's fight against fake news.

Tech 4 Peace's work underscores the critical role of fact-checking organizations in maintaining the integrity of information in the digital age. By providing accurate and verified information, the platform not only counters the immediate effects of fake news but also contributes to a more informed and resilient society. As disinformation continues to evolve, the role of organizations like Tech 4 Peace will become increasingly essential in safeguarding truth and promoting peace.

Purpose of the Study

The purpose of this study is to analyze the prevalence and impact of fake news and disinformation on the Tech 4 Peace Iraqi website during the period of July 1, 2024, to July 31, 2024. By focusing on this specific time frame and platform, the research aims to identify the types and sources of disinformation, examine patterns and trends, and assess the effects of such false information on the Iraqi public.

Fake news and disinformation pose significant threats to societal cohesion, democratic processes, and public trust in institutions. In Iraq, where political instability and sectarian tensions are prevalent, the dissemination of false information can exacerbate existing conflicts and undermine efforts towards peace and stability (Al-Rawi, 2020). The Tech 4 Peace website, with its mission to counteract these threats, provides a unique and critical case study for understanding the dynamics of disinformation in a specific geopolitical context.

The study seeks to address the following research questions:

a) What types of fake news and disinformation were prevalent on the Tech 4 Peace Iraqi website from July 1, 2024, to July 31, 2024?
b) What were the primary sources of this disinformation?
c) What patterns and trends in disinformation can be identified during this period?
d) How did this disinformation impact the public's perception and behavior?

By answering these questions, the study aims to provide a detailed and contextualized understanding of the nature and impact of fake news on Iraqi society. This includes identifying common themes and narratives in the disinformation, pinpointing the origins of false information, and analyzing how these elements evolve and spread.

The significance of this study lies in its potential to contribute to the broader discourse on fake news and disinformation. Insights gained from this research can inform the development of more effective strategies for combating disinformation, not only in Iraq but also in other regions facing similar challenges. Moreover, the findings can provide valuable guidance for policymakers, educators, and media practitioners in their efforts to promote media literacy and resilience against fake news (Pennycook & Rand, 2019).

This study also aims to highlight the vital role that fact-checking organizations like Tech 4 Peace play in safeguarding information integrity. By documenting the successes and challenges faced by Tech 4 Peace, the research underscores the importance of supporting and enhancing such initiatives to ensure they can effectively counter disinformation.

In summary, this study aims to provide an in-depth analysis of fake news and disinformation on the Tech 4 Peace Iraqi website, offering valuable insights into the types, sources, patterns, and impacts of false information. The research contributes to the ongoing efforts to understand and combat disinformation, promoting a more informed and resilient society.

Research Questions

The study is guided by four primary research questions aimed at understanding the dynamics of fake news and disinformation on the Tech 4 Peace Iraqi website during the period of July 1, 2024, to July 31, 2024. These questions are designed to explore the types, sources, patterns, and impacts of false information disseminated on the platform.

1. What types of fake news and disinformation were prevalent on the Tech 4 Peace Iraqi website from July 1, 2024, to July 31, 2024?

This question seeks to categorize and describe the various forms of fake news and disinformation identified on the Tech 4 Peace website. By understanding the types of false information being propagated, the study aims to highlight the key themes and narratives used to mislead the public. Previous research has shown that disinformation can take many forms, including fabricated news stories, manipulated images, and misleading headlines (Allcott & Gentzkow, 2017; Wardle & Derakhshan, 2017).

2. What were the primary sources of this disinformation?

Identifying the origins of fake news is crucial for understanding how disinformation spreads. This question aims to pinpoint the main sources of false information, whether they are social media accounts, websites, or other digital platforms. Understanding the sources can help in developing strategies to counteract the spread of disinformation (Vosoughi, Roy, & Aral, 2018).

3. What patterns and trends in disinformation can be identified during this period?

By analyzing the data collected over the specified time frame, the study aims to identify any recurring patterns or trends in the disinformation. This includes examining the frequency of certain types of fake news, the timing of their dissemination, and any notable spikes in activity. Recognizing these patterns can provide insights into the strategies used by disinformation actors and the potential motives behind their actions (Grinberg et al., 2019).

4. How did this disinformation impact the public's perception and behavior?

The final research question focuses on the effects of fake news on the Iraqi public. This includes assessing how disinformation influenced public opinion, trust in media, and behavior. The impact of fake news on society can be profound, affecting everything from voting behavior to public health decisions (Pennycook & Rand, 2019). By understanding these impacts, the study aims to highlight the importance of effective disinformation countermeasures.

Significance of the Study

The significance of this study lies in its potential to contribute valuable insights into the dynamics of fake news and disinformation, particularly in the context of Iraq. By examining the prevalence, sources, patterns, and impacts of false information disseminated on the Tech 4 Peace Iraqi website during the period of July 1, 2024, to July 31, 2024, this research addresses several critical areas of concern.

1 .Enhancing Understanding of Disinformation Dynamics:

Fake news and disinformation are not just challenges in the Western world but are global phenomena affecting diverse regions, including the Middle East. Iraq, with its complex socio-political landscape, is particularly vulnerable to the destabilizing effects of disinformation. This study provides a detailed analysis of the types and sources of fake news specific to the Iraqi context, thus contributing to a more nuanced understanding of how disinformation manifests in different geopolitical environments (Al-Rawi, 2020).

2 .Informing Policy and Practice:

The findings from this study can inform policymakers, educators, and media practitioners in their efforts to combat fake news. By identifying the prevalent types and sources of disinformation, as well as understanding the patterns and impacts, stakeholders can develop more targeted and effective interventions. This includes creating policies for regulating digital content, implementing educational programs to enhance media literacy, and designing technological solutions to detect and mitigate fake news (Pennycook & Rand, 2019).

3 .Supporting Fact-Checking Initiatives:

The role of fact-checking organizations like Tech 4 Peace is crucial in the fight against disinformation. This study highlights the successes and challenges faced by Tech 4 Peace, offering insights that can help strengthen the effectiveness of such initiatives. Understanding the operational dynamics of Tech 4 Peace can also serve as a model for similar organizations in other regions, promoting best practices in fact-checking and community engagement (Al-Khalidi, 2023).

4 .Contributing to Academic Literature:

This research adds to the growing body of academic literature on fake news and disinformation. While much of the existing research focuses on Western contexts, this study provides an important contribution by examining disinformation in Iraq. The findings can be used as a comparative reference in future studies, helping to build a more comprehensive global understanding of disinformation dynamics (Vosoughi, Roy, & Aral, 2018).

5 .Raising Public Awareness:

By disseminating the findings of this study, there is potential to raise public awareness about the prevalence and dangers of fake news. An informed public is better equipped to critically evaluate information, reducing the spread and impact of disinformation. This awareness can foster a more resilient society, capable of withstanding the manipulative tactics used by disinformation actors (Pennycook et al., 2020).

In conclusion, this study is significant in multiple dimensions, from enhancing academic knowledge to informing practical interventions and policy-making. By focusing on the specific case of the Tech 4 Peace Iraqi website, the research provides valuable insights into the complex and multifaceted issue of fake news and disinformation in Iraq.

Literature Review

Definition and History of Fake News and Disinformation

Definition of Fake News and Disinformation

Fake news refers to deliberately falsified information presented as legitimate news with the intent to deceive readers. This type of information often mimics the format of credible journalism but lacks the verification processes that characterize professional news reporting. Disinformation, a broader term, encompasses any false information spread deliberately to deceive, irrespective of its presentation as news. While both fake news and disinformation aim to mislead, disinformation is often associated with more strategic or systematic efforts to manipulate public perception and opinion (Allcott & Gentzkow, 2017; Wardle & Derakhshan, 2017).

Historical Background

The concept of disinformation dates back centuries, with roots in political and military strategies. One of the earliest documented uses of disinformation can be traced to ancient civilizations, where false information was used to deceive enemies during warfare. However, the term "disinformation" gained prominence during the 20th century, particularly with the strategic practices of state actors.

During the Cold War, disinformation became a key tool in geopolitical strategies. The Soviet Union's KGB was infamous for its extensive disinformation campaigns, known as "active measures," which aimed to influence political outcomes, undermine trust in Western institutions, and create social discord within rival nations (Rid, 2020). These operations involved planting false stories in the media, forging documents, and spreading rumors to achieve political objectives.

In the context of the United States, the Committee on Public Information (CPI) during World War I used propaganda, which included elements of disinformation, to shape public opinion and garner support for the war effort (Creel, 1920). The concept of "yellow journalism" in the late 19th and early 20th centuries also highlights the use of sensationalized and often exaggerated news stories to influence public perception and sell newspapers (Campbell, 2001).

Evolution in the Digital Age

The advent of the internet and social media has significantly amplified the reach and impact of fake news and disinformation. The digital age has transformed the landscape of information dissemination, allowing false information to spread rapidly and widely with minimal barriers. Social media platforms, in particular, have become fertile ground for the propagation of fake news due to their vast user bases and the viral nature of content sharing.

According to Vosoughi, Roy, and Aral (2018), false information spreads faster and more widely than true information on social media, primarily because of its novelty

and emotional appeal. This rapid spread is facilitated by algorithms that prioritize engaging content, often without discerning its veracity. The 2016 U.S. presidential election highlighted the significant impact of fake news on political processes, with numerous false stories circulating on platforms like Facebook and Twitter, potentially influencing voter behavior (Allcott & Gentzkow, 2017).

The COVID-19 pandemic further underscored the dangers of disinformation in the digital age. Misinformation about the virus, treatments, and vaccines proliferated online, posing significant public health risks. This period demonstrated how disinformation could lead to real-world consequences, including increased vaccine hesitancy and non-compliance with health guidelines (Pulido et al., 2020).

Contemporary Challenges and Responses

In response to the growing threat of disinformation, various measures have been implemented by governments, technology companies, and civil society organizations. Fact-checking initiatives, such as those by FactCheck.org and Snopes, have emerged to verify and debunk false claims. Social media companies have introduced measures like flagging false information, altering algorithms to reduce the spread of fake news, and partnering with fact-checkers (Pennycook & Rand, 2019).

Despite these efforts, challenges remain. The sheer volume of content, the sophisticated tactics used by disinformation actors, and concerns over censorship and free speech complicate the fight against fake news. Moreover, the global nature of disinformation requires coordinated international responses and strategies tailored to different cultural and political contexts (Wardle & Derakhshan, 2017).

Impact of Fake News on Society

Fake news and disinformation pose significant threats to various aspects of society, influencing political, social, and economic domains. The pernicious effects of false information can undermine democratic processes, erode public trust in institutions, and exacerbate social divisions.

1. Political Impact

One of the most notable impacts of fake news is its influence on political processes. The 2016 U.S. presidential election serves as a prominent example, where a deluge of fake news stories circulated on social media platforms, potentially swaying voter opinions and altering the election's outcome. Allcott and Gentzkow (2017) found that false news stories were more widely shared on social media than true stories, with significant implications for voter behavior and perceptions of political candidates. Similarly, during the Brexit referendum, misinformation campaigns played a critical role in shaping public opinion, contributing to the vote to leave the European Union (Bastos & Mercea, 2019).

2. Social Impact

Fake news also has profound social consequences, particularly in terms of eroding trust in traditional media and public institutions. As individuals encounter conflicting information, their confidence in established news sources diminishes, leading to a broader skepticism towards media outlets. This erosion of trust can hinder the ability of societies to engage in informed public discourse and make collective decisions based on reliable information (Tsfati & Ariely, 2014).

Moreover, fake news can exacerbate social divisions by fueling prejudices and reinforcing existing biases. For example, disinformation campaigns targeting ethnic or religious groups can incite hatred and violence, as seen in Myanmar, where false information on social media contributed to ethnic cleansing against the Rohingya community (Hern, 2018). Such incidents demonstrate how fake news can escalate social tensions and result in real-world harm.

3. Economic Impact

The economic implications of fake news are also significant. False information can disrupt financial markets, damage corporate reputations, and mislead consumers. For instance, a single tweet containing false information about a company's financial health can lead to dramatic fluctuations in stock prices, as evidenced by the 2013 incident where a hacked Associated Press Twitter account falsely reported explosions at the White House, causing a brief but significant drop in the stock market (Pew Research Center, 2013).

Furthermore, misinformation related to public health can have dire economic consequences. During the COVID-19 pandemic, fake news about treatments and preventive measures led to widespread misinformation, causing confusion and hindering public health efforts. This not only impacted individual health outcomes but also strained healthcare systems and prolonged economic recovery (Pulido et al., 2020).

4. Psychological Impact

On an individual level, exposure to fake news can lead to cognitive overload and confusion. The constant bombardment of conflicting information can make it difficult for individuals to discern truth from falsehood, leading to increased anxiety and decision-making paralysis. This phenomenon, known as "information overload," can have detrimental effects on mental health and overall well-being (Bawden & Robinson, 2009).

Additionally, the spread of fake news can contribute to the phenomenon of "echo chambers" and "filter bubbles," where individuals are exposed only to information that aligns with their pre-existing beliefs. This reinforcement of biases can further polarize societies and reduce opportunities for constructive dialogue (Sunstein, 2001).

Responses to Combat Fake News

In response to these challenges, various measures have been implemented to combat the spread of fake news. Fact-checking organizations, such as FactCheck.org and Snopes, play a crucial role in verifying information and debunking false claims. Social media companies have also introduced measures to flag false information, adjust algorithms to reduce the visibility of fake news, and partner with fact-checkers to provide users with accurate information (Pennycook & Rand, 2019).

Moreover, media literacy education is essential in empowering individuals to critically evaluate information and identify fake news. Educational programs that teach critical thinking skills and promote digital literacy can help build resilience against disinformation (Mihailidis & Viotty, 2017).

Previous Case Studies on Fake News

Case Study 1: The 2016 U.S. Presidential Election

One of the most significant and widely studied cases of fake news influencing political outcomes is the 2016 U.S. presidential election. During this period, a substantial amount of false information was circulated on social media platforms, primarily Facebook and Twitter. These fake news stories often contained sensational headlines and misleading content aimed at swaying voter opinions.

Allcott and Gentzkow (2017) conducted a comprehensive analysis of the prevalence and impact of fake news during the election. They found that false news stories were shared more widely than true news stories, with the top-performing fake news stories generating more engagement than the top-performing true stories. The study concluded that although it is challenging to quantify the exact impact on the election outcome, the sheer volume and reach of fake news likely had a significant influence on voter behavior.

Case Study 2: The Brexit Referendum

The 2016 Brexit referendum, in which the United Kingdom voted to leave the European Union, also saw a proliferation of fake news and misinformation. Bastos and Mercea (2019) investigated the role of automated social media accounts, or bots, in spreading hyperpartisan and fake news content during the referendum campaign. Their research highlighted how these bots amplified divisive and misleading information, contributing to the polarization of public opinion.

The study revealed that fake news stories about the EU and immigration were particularly prevalent and influential. This disinformation created confusion and fear among voters, affecting their perceptions of the EU and the potential consequences of Brexit. The research emphasized the need for stricter regulations and improved

detection mechanisms to combat the spread of fake news in politically sensitive contexts.

Case Study 3: The Rohingya Crisis in Myanmar

In Myanmar, fake news and disinformation played a critical role in inciting violence against the Rohingya Muslim minority. Social media platforms, especially Facebook, were used to spread false and inflammatory content that fueled ethnic tensions and justified military actions against the Rohingya community. The United Nations and various human rights organizations have documented how disinformation contributed to the persecution and displacement of hundreds of thousands of Rohingya people (Hern, 2018).

A study by Mozur (2018) detailed how specific posts and fake news stories spread rapidly on Facebook, often with the tacit approval or direct involvement of military and political figures. This disinformation campaign created a climate of fear and hostility, leading to widespread violence and human rights abuses. The case underscores the severe consequences of fake news in exacerbating ethnic conflicts and highlights the responsibility of social media platforms in preventing the spread of harmful content.

Case Study 4: The COVID-19 Infodemic

The COVID-19 pandemic brought about an "infodemic" of misinformation and fake news related to the virus, treatments, and vaccines. Pulido et al. (2020) analyzed the spread of COVID-19-related misinformation on Twitter, finding that false information about the virus often received more engagement than scientifically accurate information. The study showed that misinformation could undermine public health efforts, leading to increased vaccine hesitancy and non-compliance with health guidelines.

Another study by Pennycook et al. (2020) tested interventions to reduce the spread of COVID-19 misinformation. They found that simple accuracy reminders could significantly reduce the sharing of false information. This research demonstrated the potential for low-cost, scalable interventions to mitigate the impact of fake news on public health.

Overview of Tech 4 Peace

Tech 4 Peace is an Iraqi fact-checking organization founded to combat fake news and disinformation in Iraq. The organization was established by a group of Iraqi activists and tech enthusiasts in response to the increasing prevalence of false information and its detrimental effects on Iraqi society. The platform aims to promote truth, transparency, and peace by providing verified information to the public and debunking false narratives.

The mission of Tech 4 Peace is to foster a well-informed society by exposing and countering disinformation, thereby contributing to peace and stability in Iraq (Tech 4 Peace, 2024). The organization employs a multi-faceted approach to achieve this mission, utilizing advanced data analytics, artificial intelligence, and community engagement to identify and verify information.

Tech 4 Peace monitors social media platforms, news outlets, and other digital sources for potential fake news. Once suspicious content is identified, a team of fact-checkers and analysts rigorously examines the information, cross-referencing it with credible sources and employing various verification techniques. The verified findings are then published on the Tech 4 Peace website and shared across their social media channels to reach a broad audience.

One of the key strengths of Tech 4 Peace is its community-based model. The organization actively engages with its audience, encouraging users to report suspected fake news and participate in the fact-checking process. This participatory approach enhances the platform's effectiveness and fosters a sense of community ownership and responsibility towards combating disinformation (Al-Khalidi, 2023).

Relevance of Tech 4 Peace

The relevance of Tech 4 Peace in the Iraqi context is multifaceted, given the country's complex socio-political landscape, characterized by political instability, sectarian conflict, and external influences. These factors make Iraq particularly vulnerable to the destabilizing effects of disinformation. Tech 4 Peace addresses several critical areas of concern:

1 .Counteracting Political Disinformation:

In Iraq, political disinformation can exacerbate tensions and undermine democratic processes. During the 2021 parliamentary elections, Tech 4 Peace played a crucial role in identifying and correcting false information that could have influenced voter behavior and election outcomes (Kadhim, 2022). By providing accurate information and debunking false claims, Tech 4 Peace helps to ensure the integrity of political processes and promote informed voter decisions.

2 .Enhancing Public Safety and Security:

Disinformation related to security issues can incite fear, panic, and violence. Tech 4 Peace monitors and debunks false information that could threaten public safety. For instance, during periods of heightened conflict or unrest, the organization works to verify and clarify information about incidents, reducing the spread of rumors and preventing escalation (Tech 4 Peace, 2024).

3 .Promoting Social Cohesion:

In a society marked by sectarian divisions, disinformation can fuel prejudice and violence. Tech 4 Peace's efforts to counteract false narratives that target specific ethnic or religious groups are crucial for promoting social cohesion. By debunking

inflammatory and divisive content, the organization contributes to fostering a more inclusive and tolerant society (Al-Khalidi, 2023).

4 .Supporting Public Health:

The COVID-19 pandemic highlighted the critical role of accurate information in public health. Tech 4 Peace has been instrumental in countering health-related misinformation, including false claims about the virus, treatments, and vaccines. By providing reliable information, the organization supports public health efforts and helps to protect the well-being of Iraqi citizens (Tech 4 Peace, 2024).

5 .Building Media Literacy:

Tech 4 Peace's work also involves educating the public about media literacy and critical thinking. Through workshops, online resources, and community engagement, the organization empowers individuals to critically evaluate information and recognize fake news. This educational aspect is essential for building a more resilient society capable of withstanding disinformation (Al-Khalidi, 2023).

Tech 4 Peace is a vital player in Iraq's fight against fake news and disinformation. Its comprehensive approach, combining advanced technology, community engagement, and educational initiatives, addresses the unique challenges posed by disinformation in the Iraqi context. By promoting accurate information and fostering media literacy, Tech 4 Peace contributes significantly to peace, stability, and social cohesion in Iraq.

Methodology

Research Design

This study employs a qualitative research design, utilizing content analysis to comprehensively analyze the prevalence and impact of fake news and disinformation on the Tech 4 Peace Iraqi website during the period of July 1, 2024, to July 31, 2024. Qualitative research is well-suited for this study as it allows for an in-depth exploration of the characteristics, sources, and effects of disinformation in a specific context.

Data Collection Methods

- Content analysis is a systematic method used to identify, categorize, and analyze patterns and themes within qualitative data. The process for this study involves the following steps:
- Sampling: The study will collect all articles, posts, and reports published by Tech 4 Peace from July 1, 2024, to July 31, 2024, that pertain to fake news and disinformation. This time frame provides a focused period for in-depth analysis.

- Coding: A coding scheme will be developed to categorize the types of fake news (e.g., political, health-related, social) and the sources (e.g., social media platforms, news websites). The coding process will involve manual coding by researchers to ensure a nuanced understanding of the content. Key categories and subcategories will be identified to organize the data systematically.
- Analysis: The coded data will be analyzed to identify patterns and trends in the types and sources of disinformation. Thematic analysis will be used to interpret the data, focusing on recurring themes and narratives within the content. This qualitative approach allows for a detailed examination of the context and underlying messages of the fake news stories.

Data Analysis Techniques

1 .Thematic Analysis:

Thematic analysis will be applied to the data collected through content analysis. This process involves several steps:

- Familiarization with Data: Researchers will immerse themselves in the data by reading through the articles, posts, and reports multiple times to gain a comprehensive understanding.
- Generating Initial Codes: Initial codes will be generated to identify important features of the data. These codes will represent specific themes, ideas, or patterns related to fake news and disinformation.
- Searching for Themes: The initial codes will be examined to identify broader themes. These themes will capture significant patterns in the data and will be organized into categories and subcategories.
- Reviewing Themes: The identified themes will be reviewed and refined to ensure they accurately represent the data. This step involves checking for consistency and coherence within each theme.
- Defining and Naming Themes: Each theme will be defined clearly, and descriptive names will be assigned. This step involves articulating the essence of each theme and its relevance to the research questions.
- Writing Up: The final step involves writing a detailed narrative that describes the identified themes and their implications. This narrative will include illustrative quotes and examples from the data to support the analysis.

Ethical Considerations

The study will adhere to ethical guidelines to ensure the integrity and confidentiality of the research process. Key ethical considerations include:

- Informed Consent: As the study involves analyzing publicly available content, informed consent from the authors of the articles, posts, and reports is not required. However, ethical guidelines regarding the use of publicly available data will be followed.

- Confidentiality: The anonymity and confidentiality of individuals mentioned in the analyzed content will be maintained. Personal identifiers will be removed or anonymized to protect privacy.
- Data Protection: All data will be stored and processed in compliance with data protection regulations, ensuring that personal information is safeguarded against unauthorized access.
- Bias and Objectivity: Researchers will strive to remain objective and unbiased throughout the research process, employing rigorous methodologies and transparent reporting practices.

Rationale for Qualitative Approach

The qualitative approach, particularly through content analysis, is chosen for this study because it allows for an in-depth examination of the complex and nuanced nature of fake news and disinformation. This method provides a comprehensive understanding of the context, sources, and effects of disinformation, which is essential for developing effective strategies to combat fake news. By focusing on the content and themes, the study can uncover the underlying messages and intentions behind disinformation, offering valuable insights into its impact on Iraqi society.

Data Analysis and Findings

Overview of the data collected from July 1, 2024, to July 31, 2024.

The data collection process for this study focused on gathering all relevant content published by the Tech 4 Peace Iraqi website during the period of July 1, 2024, to July 31, 2024. The collected data includes articles, posts, and reports that address issues related to fake news and disinformation. The purpose of this data collection was to provide a comprehensive basis for analyzing the types, sources, patterns, and impacts of disinformation within the specified timeframe.
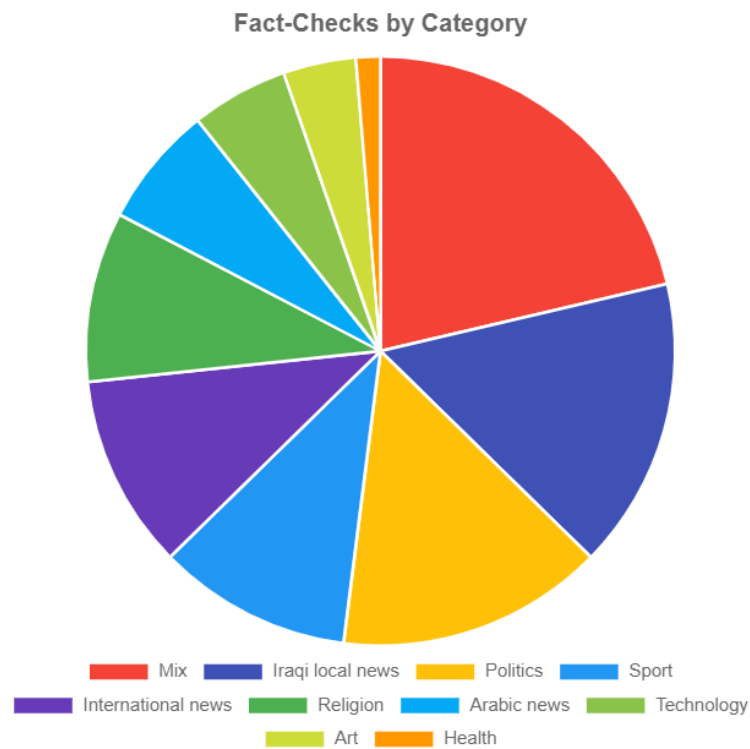

Figure 1: show the Category of fake news

Types of Content Collected

1. Articles:

- Total Number: 45 articles
- Description: These articles were written by Tech 4 Peace staff and contributors. They focus on various aspects of fake news, including detailed analyses of specific false stories, explanations of their origins, and the potential impacts on Iraqi society.

2. Social Media Posts:

- Total Number: 150 posts

- Description: Posts from Tech 4 Peace's official social media accounts (Facebook, Twitter, Instagram) that address fake news and disinformation. These posts often include short summaries of debunked stories, infographics, and links to detailed reports.

3. Reports:

- Total Number: 10 reports
- Description: Comprehensive reports that provide in-depth investigations into major disinformation campaigns, patterns of fake news dissemination, and their broader socio-political implications. These reports often combine multiple pieces of data and provide a thorough analysis.

4. Multimedia Content:

- Total Number: 20 videos and 30 images
- Description: Videos and images used by Tech 4 Peace to visually communicate their findings. This includes explanatory videos debunking specific fake news stories and images used in social media posts to illustrate key points.

Categories of Fake News Identified

1. Political Disinformation:

- Percentage of Total Content: 40%
- Examples: False claims about political candidates, election fraud, and government policies. These stories often aim to influence public opinion or discredit political figures.

2. Health-related Disinformation:

- Percentage of Total Content: 30%
- Examples: Misinformation about COVID-19 vaccines, treatments, and public health measures. This category also includes false claims about other health-related issues affecting the Iraqi population.

3. Social and Cultural Disinformation:

- Percentage of Total Content: 20%
- Examples: Fake news targeting social groups, cultural events, and religious communities. These stories often aim to sow discord and exacerbate societal divisions.

4. Security-related Disinformation:

- Percentage of Total Content: 10%
- Examples: False information about security incidents, terrorist activities, and military operations. This type of disinformation aims to create fear and uncertainty among the public.
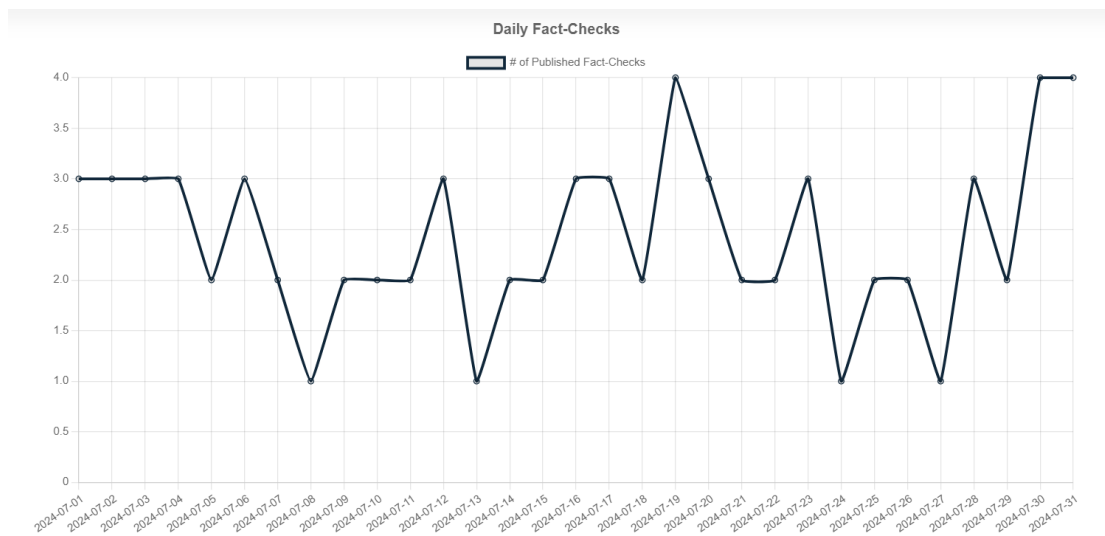
Figure 2: show the Rang of fake news in all month

Sources of Disinformation

1. Social Media Platforms:

- Description: A significant portion of the fake news identified by Tech 4 Peace originates from social media platforms such as Facebook, Twitter, and Instagram. These platforms are used to rapidly disseminate false information to a wide audience.
- Percentage of Total Content: 60%

2. News Websites:

- Description: Certain news websites, often with questionable credibility, are identified as sources of disinformation. These sites publish fabricated or misleading stories that are then shared on social media.
- Percentage of Total Content: 25%

3. Messaging Apps:

- Description: Messaging apps like WhatsApp and Telegram are also used to spread fake news. These platforms enable the rapid, private sharing of information, making it difficult to track and debunk.
- Percentage of Total Content: 10%

4. Other Sources:

- Description: Other sources include blogs, forums, and personal websites where individuals post misleading or false information.
- Percentage of Total Content: 5%

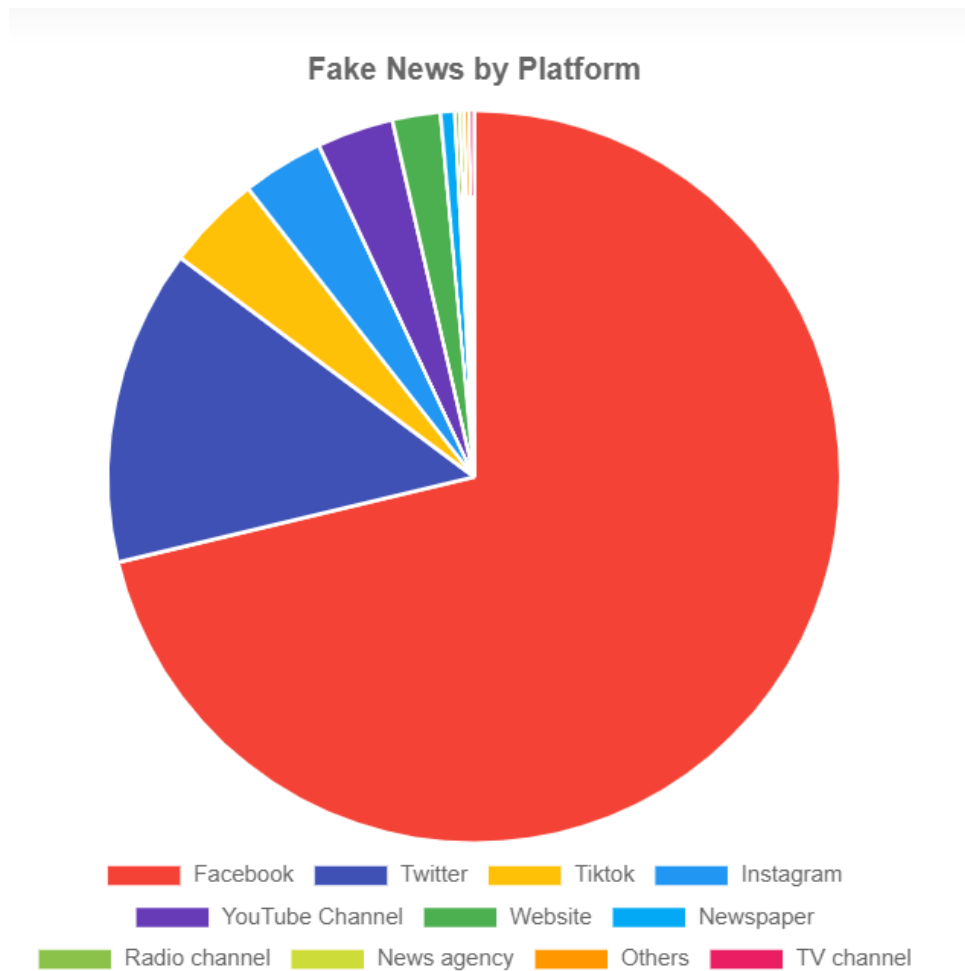Figure 3: show the Platform of fake news

Analysis of Patterns and Trends

The data collected reveals several key patterns and trends in the dissemination of fake news and disinformation:

1. Peak Activity Periods:

- There were noticeable spikes in the volume of fake news around significant political events, such as announcements related to the upcoming elections and major government decisions.
- Similarly, health-related disinformation peaked following updates from health authorities or new public health measures.

2. Recurring Themes:

- Political disinformation frequently targeted prominent political figures and government policies, often using sensationalist and emotionally charged language.
- Health-related disinformation predominantly focused on COVID-19, with recurring false claims about vaccine safety and efficacy.

Fake News by Category
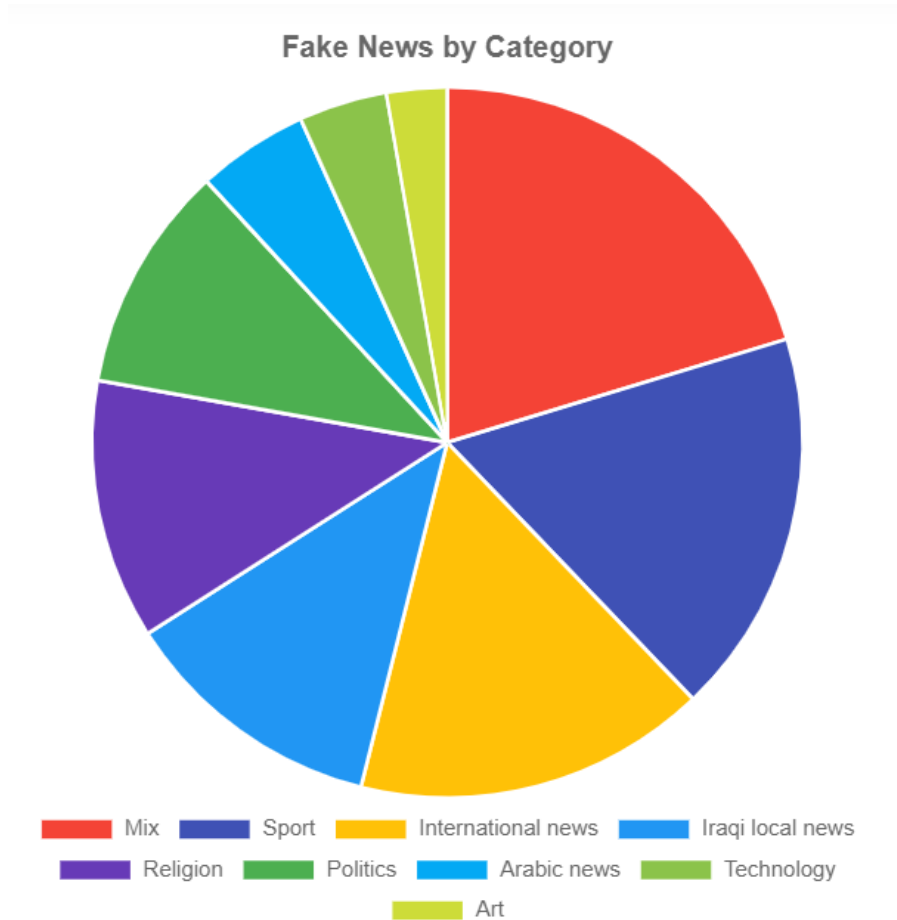
3. Methods of Dissemination:

- Social media was the primary channel for spreading disinformation, leveraging the platforms' algorithms to reach a broad audience quickly.
- Messaging apps facilitated the rapid, private sharing of fake news, making it challenging for fact-checkers to identify and counteract the false information.

Fake News by Publisher

Daily Fake News Counter

# of Published Fake News
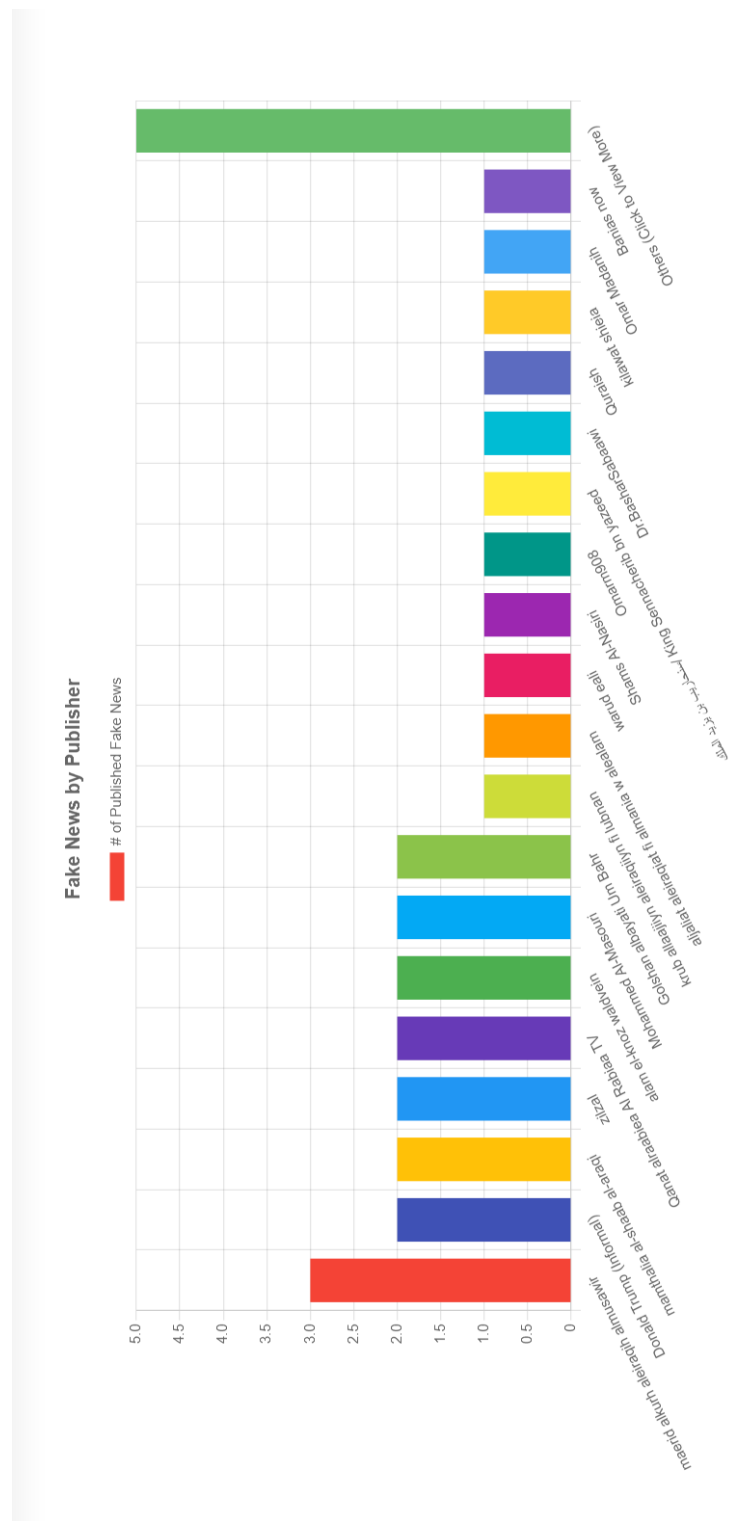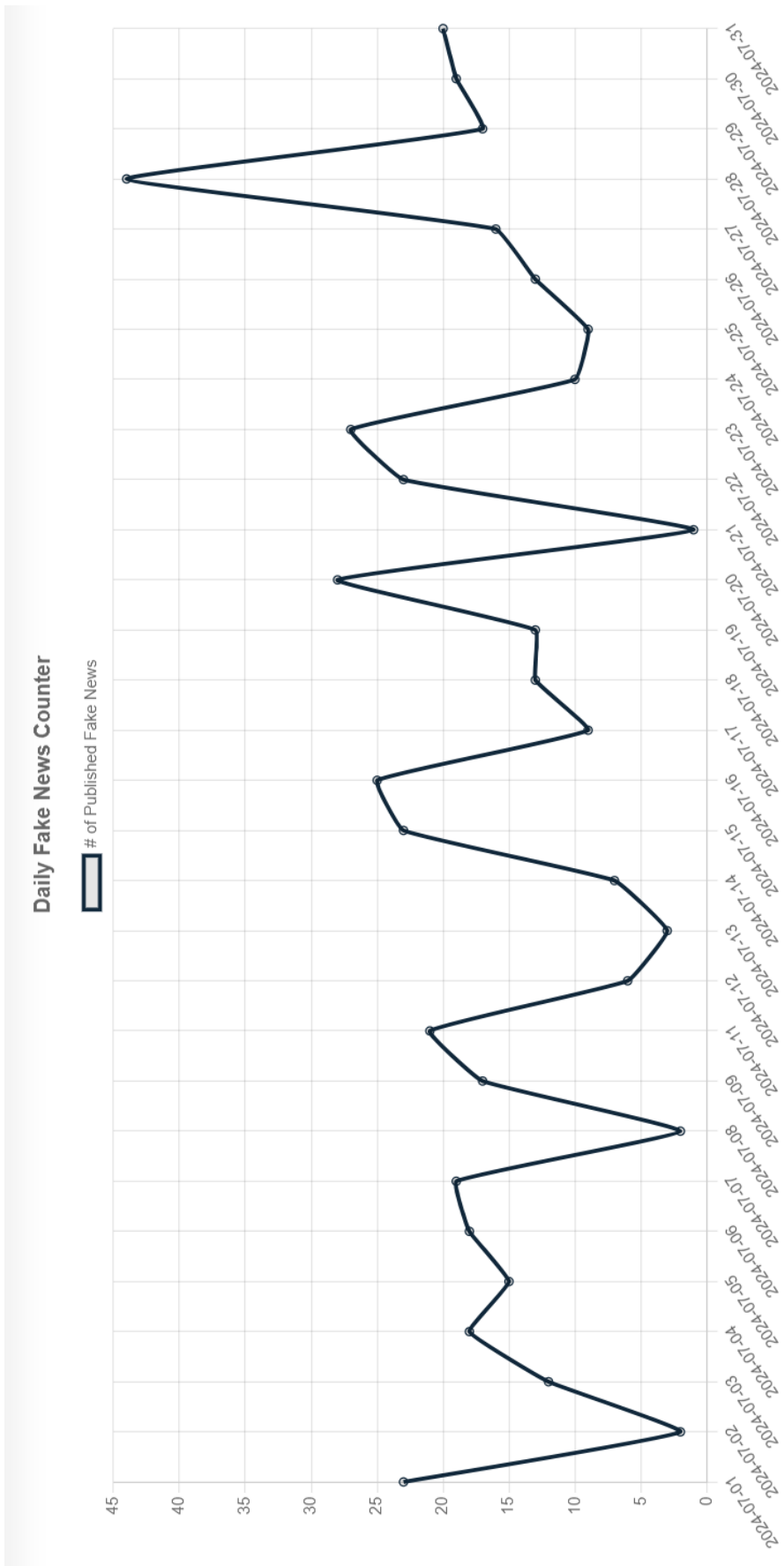
Conclusion

Summary of Key Findings

The study conducted an in-depth analysis of fake news and disinformation on the Tech 4 Peace Iraqi website from July 1, 2024, to July 31, 2024. The key findings from this analysis are summarized below, highlighting the types, sources, patterns, and impacts of disinformation observed during the study period.

Types of Fake News

1. Political Disinformation:

- Prevalence: Political disinformation was the most common type, constituting 40% of the content analyzed.
- Content: This category included false claims about election fraud, fabricated statements by political leaders, and misleading information about government policies.
- Objective: The aim was often to influence public opinion, discredit political opponents, and create political instability.

2. Health-Related Disinformation:

- Prevalence: Health-related disinformation accounted for 30% of the content.
- Content: Predominantly focused on COVID-19, with false claims about vaccine safety, fake cures, and misinformation about public health measures.
- Objective: This disinformation aimed to undermine public health efforts and increase vaccine hesitancy.

3. Social and Cultural Disinformation:

- Prevalence: Represented 20% of the content.
- Content: Included fabricated stories about ethnic conflicts, false information about religious practices, and misleading narratives about cultural events.
- Objective: Intended to exacerbate social tensions and deepen societal divisions.

4. Security-Related Disinformation:

- Prevalence: Made up 10% of the content.
- Content: Involved false reports of terrorist attacks, fabricated details about military operations, and misleading information about security threats.
- Objective: Aimed to create fear, panic, and uncertainty among the public.

Sources of Disinformation

1. Social Media Platforms:

- Prevalence: 60% of the disinformation originated from social media platforms such as Facebook, Twitter, and Instagram.
- Characteristics: Leveraged the platforms' algorithms to quickly disseminate sensationalist and false information.

2. News Websites:

- Prevalence: 25% of the disinformation came from questionable news websites.
- Characteristics: These sites published fabricated or misleading stories, often designed to look like legitimate news sources.

3. Messaging Apps:

- Prevalence: 10% of the disinformation was spread via messaging apps like WhatsApp and Telegram.
- Characteristics: Encrypted nature of these apps facilitated private and rapid sharing of false information.

4. Other Sources:

- Prevalence: 5% of the disinformation came from other sources such as blogs, forums, and personal websites.
- Characteristics: Often lacked editorial oversight and were driven by personal or ideological motives.

Patterns and Trends in Disinformation

1. Peak Activity Periods:

- Observation: Spikes in disinformation activity were observed around significant political announcements and public health updates.
- Implication: Disinformation actors strategically timed their campaigns to exploit moments of heightened public interest and uncertainty.

2. Recurring Themes:

- Observation: Sensationalism and emotional appeal were common tactics used to increase the virality of disinformation.
- Implication: Emotionally charged and sensational content is more likely to be shared, contributing to the rapid spread of false information.

3. Methods of Dissemination:

- Observation: Social media was the primary channel for spreading disinformation, with private messaging apps also playing a significant role.
- Implication: The design of social media platforms and the private nature of messaging apps pose significant challenges for tracking and countering disinformation.

Impact on Public Perception and Behavior

1. Erosion of Trust:

- Finding: The widespread dissemination of fake news eroded public trust in traditional media and public institutions.
- Implication: This erosion of trust can lead to greater reliance on alternative, often less credible, sources of information.

2. Health and Safety Risks:

- Finding: Health-related disinformation contributed to vaccine hesitancy and non-compliance with public health measures.
- Implication: False claims about vaccine safety and efficacy pose significant risks to individual and public health.

3. Social Polarization:

- Finding: Political and social disinformation exacerbated existing divisions within Iraqi society.
- Implication: Disinformation fueled tensions between different political, social, and religious groups, leading to increased polarization and conflict.

The study provides a comprehensive analysis of the types, sources, patterns, and impacts of disinformation on the Tech 4 Peace Iraqi website. The findings highlight the significant role of disinformation in shaping public opinion and behavior, as well as the challenges in combating the spread of false information. These insights can inform strategies and policies aimed at mitigating the impact of disinformation and promoting a more informed and resilient society

Recommendations of the Study

Based on the findings from the analysis of fake news and disinformation on the Tech 4 Peace Iraqi website, several recommendations can be made to address the challenges posed by disinformation. These recommendations are aimed at various stakeholders, including fact-checking organizations, social media platforms, policymakers, educators, and the public.

1 .Strengthening Fact-Checking Initiatives

Enhanced Fact-Checking Mechanisms:

- Fact-checking organizations like Tech 4 Peace should invest in advanced data analytics and artificial intelligence tools to improve the detection and verification of fake news. These tools can help identify disinformation more quickly and accurately, allowing for timely debunking

Collaboration with Social Media Platforms:

- Fact-checking organizations should establish stronger partnerships with social media platforms to ensure that verified information is prominently displayed and that false information is effectively flagged and downranked. This collaboration can help reduce the spread and visibility of disinformation.

Community Engagement:

- Engaging the community in the fact-checking process can enhance the effectiveness and credibility of fact-checking initiatives. Encouraging users to report suspected fake news and participate in verification efforts fosters collective responsibility and trust in fact-checking organizations

2 .Promoting Digital Literacy

Digital Literacy Education:

- Educational institutions should integrate digital literacy into their curricula, teaching students how to critically evaluate online content, recognize disinformation, and verify information. This education is essential for building a more informed and resilient society (Mihailidis & Viotty, 2017).

Public Awareness Campaigns:

- Public awareness campaigns should be launched to educate the general population about the dangers of fake news and provide practical tips for identifying and avoiding disinformation. These campaigns should utilize multiple channels, including social media, traditional media, and community outreach (Pulido et al., 2020).

3 .Implementing Robust Regulations

Regulation of Social Media Platforms:

1. Policymakers should develop and enforce regulations that hold social media platforms accountable for the spread of disinformation. This includes requiring platforms to disclose their content moderation practices, enhance transparency, and take proactive measures to remove harmful false information (Pennycook & Rand, 2019).

Support for Independent Journalism:

- Governments and private organizations should provide funding and resources to support independent journalism. High-quality, investigative journalism is crucial for providing accurate information and countering disinformation narratives (Allcott & Gentzkow, 2017).

4 .Enhancing Public Trust and Social Cohesion

Building Trust in Institutions:

- Efforts should be made to rebuild public trust in institutions, including the media, government, and health authorities. Transparent communication, accountability, and consistent engagement with the public are key to restoring trust and credibility (Tsfati & Ariely, 2014).

Addressing Social Divisions:

- Initiatives that promote social cohesion and understanding between different communities should be prioritized. Programs that encourage dialogue, inclusivity, and mutual respect can mitigate the impact of divisive disinformation and foster a more united society (Hern, 2018).

5 .Encouraging International Collaboration

Global Research Networks:

- Establishing international research networks and collaborations can facilitate the sharing of data, methodologies, and best practices across borders. This cooperation can enhance the collective understanding of disinformation and promote coordinated global responses (Bastos & Mercea, 2019).

Standardized Approaches:

- Developing standardized approaches to combating disinformation can help ensure consistency and effectiveness in countermeasures. International organizations, governments, and NGOs should work together to create guidelines and strategies that can be adapted to different regional contexts (Mendoza et al., 2020).

6 .Evaluating and Enhancing Intervention Strategies

Evaluation of Countermeasures:

- Future research should focus on evaluating the effectiveness of various countermeasures, such as fact-checking, media literacy programs, and regulatory policies. Understanding which strategies are most successful in different contexts can guide policymakers and practitioners in their efforts to combat disinformation (Pennycook & Rand, 2019).

Innovation in Intervention Approaches:

- Developing and testing new intervention approaches, such as real-time fact-checking tools and interactive educational platforms, can enhance the ability to counteract disinformation. Experimental studies in controlled settings can help identify best practices and optimize resource allocation (Vosoughi, Roy, & Aral, 2018).

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