

Social Media Users' Understanding of Fake News Detection and Validation Tools

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ABSTRACT

The internet has now become a part of our daily lives. Besides providing access to a wealth of information and enabling communication, it also poses risks, such as fake news and rumours. Since 2016, the number of people becoming victims of cyber-crimes has increased. This could be due to the proliferation of fake news on the internet. Other effects of fake news would include the proliferation of false and discredited news as well as providing opportunities for harmful conspiracy and hate speeches to spread. Ultimately, this can create confusion and misunderstanding on important social and political issues, and society at large becomes disunited as mistrust between different groups increases. Within the last few years, there appears to be a lack of research that measures the awareness on the availability, as well as the impact of fake news detection and validation tools among social media users, especially towards information safety. This study aims to discover the effect of fake news among social media users in Malaysia, understand the awareness of fake news detection and validation tools and explore the impact of fake news detection and validation tools on social media users. Data is collected using open-ended in-depth interviews with six respondents and analysed using the qualitative data analysis technique software Atlas.ti. The findings of the study show that most of the respondents agree on the adverse effect of fake news dissemination. However, only half of them lack awareness of the importance of tools in validating the news online. The respondents also acknowledge the great impact of the tools in combating fake news on information safety on social media. This study is significant to educate social media users about cyber wellness and equip them with the awareness about tools that can help them identify and validate the news easily and freely accessible.

Keywords: Fake News, Fake News Detection Tools, Fact-Checking Tools, Fake News, Awareness

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INTRODUCTION

Background Of Study

The internet has now become an inextricable element of our daily routine. Newspapers and television, for example, have played a less significant role in how we receive and consume information compared to in the past. The emergence of social media platforms has undoubtedly contributed to this transformation. The popularity of social media sites such as Twitter and Facebook has skyrocketed over the past few years. There is broad debate about the definition of social media, and it is not always clear what constitutes social media in terms of tools, platforms, or social phenomena. However, the concept includes several types of websites, such as social networking sites, microblogs, and social news sites (McCay-Peet & Quan-Haase, 2017). By March 2021, there were over 5.1 billion

internet users globally, with a 65.6 percent internet penetration rate (Stats, 2021). The internet not only provides access to a wealth of information and enables communication, but it also poses risks, such as fake news and rumours. Since Malaysia is a multi-racial country where there are at least three major racial groups that make up the population, there is an added need to ensure that false news and reports that can incite racial tension is addressed.

The increase in the number of fake news every year is very worrying, especially in Malaysia. Studies by Hopp, Ferrucci, & Vargo (2020) suggested that sharing counter media information on Facebook links positively to ideological extremism and negatively links to trust in the mainstream media. It shows that Facebook, more than any other social media network, is a fertile breeding ground for fake news. Cyber Security Malaysia (CSM) through its official complaint centre Cyber999 found 2,977 total reports received for the period from January to April 2019 (Bernama, 2019).

The Ministry of Home Affairs of Malaysia (*Kementerian Dalam Negri, KDN*) found that the dissemination of false information or seditious news is becoming more widespread, which can create unrest, especially when the news touches sensitive issues in society (Ruzki, 2020). Meanwhile, a total of 330 denials and explanations of fake news were issued to clarify to the public about the coronavirus outbreak (Covid-19) in Malaysia. The Malaysian Director-General of Health, Tan Sri Dr. Noor Hisham Abdullah said, the number recorded by the Quick Response Team (PRP) of the Ministry of Communications and Multimedia Malaysia was established to curb the spread of false news related to the epidemic (Husain & Adnan, 2020).

Problem Statement

The term "Fake News" is defined as representing fabricated news or propaganda that contains misinformation communicated via traditional media channels like print, and television including non-traditional media channels like social media (Masciari, Moscato, Picariello, & Sperli, 2020). In simple words, 'Fake News' is understood as a made-up story to deceive or mislead. Detecting fake news becomes an important effort because it can change people's perception and action towards uncertainty. According to Rashkin, Choi, Jang, Volkova, & Choi (2017), the words in the news portal and political debate have immense power in shaping people's beliefs and opinions. This eventuality led to compromising their truthfulness to maximise impact. Accepting fake news as real news can bring harm and disrupt peaceful existence between communities in any society.

To counter these fake news, there are fake news detection tools that can measure the effectiveness of their approach using content from English language-based sources (Aldwairi & Alwahedi, 2018; Apuke & Omar, 2020; Domenico, Sit, Ishizaka, & Nunan, 2021; Jack, 2017; Zhou & Zafarani, 2020). Thus far, it is difficult to find a study that focuses on news content in *Bahasa Melayu*, the national language of Malaysia, to measure the effectiveness of the model due to the lack of research. Since the majority of the Malaysian population is still using the national language media to read news and to post content on social media platforms, it is important to make sure that netizen can identify which of the content they read is fake or real to prevent the spread of fake news and ensure that society stays in a state of harmony.

Based on the current literature, there appears to be a lack of research that measures the awareness of the availability of fake news detection and validation tools among social media users in Malaysia. Two of these tools are namely *Sebenarnya.my* (2020) and *SemakanFakta* (2022). In addition, there seems to be a lack of study on the impact of fake news detection and validation tools on social media users towards information safety. This issue has led the researchers to explore this topic in a more specific area, focussing on users' awareness about fake news detection and validation tools especially on content in *Bahasa Melayu*.

Research Questions

This study aims to understand the awareness of social media users in Malaysia about the availability of the fake news detection and validation tools to verify the news. Hence, the following are the research questions:

1. What does fake news dissemination mean to social media users in Malaysia?
2. What is the social media users' awareness of fake news detection and validation tools?
3. How do fake news detection and validation tools influence social media users' opinions on information safety?

LITERATURE REVIEW

Studies on Fake News

In this study, the research articles are reviewed using online databases platform such as Google Scholar, university's subscribed Scopus and Science Direct databases and ResearchGate databases. In addition, several independent websites are also used to get specific data, for example to get the latest statistics on internet users around the world, specific news statement about fake news issues and fact-checking websites. Only articles published between 2015-2021 are reviewed. The searching for research articles uses keywords like "fake news," "fake news detection tool" and "fake news effect." Twenty-five articles are finally selected after a careful assessment of each article based on the objective and scope of the study, as they provide important and useful information that are related. We further divide the study into four sections; 1) fake news definition, 2) history, 3) challenge and the effect of fake news dissemination, 4) fake news detection tools and fact checking tools.

Overview of Fake News

Fake news can come in numerous forms, including unintentional errors made by news aggregators, outright fraudulent stories, and tales meant to deceive and alter readers' opinions. Fake news often harm communities, nations, and organisations since it contradicts actual facts. Social media is a promising area for the dissemination of unconfirmed and/or fraudulent information due to the lack of oversight and fact-checking over posts (Zubiaga, Aker, Bontcheva, Liakata, & Procter, 2018). This section describes the issues related to fake news, rumours and misinformation on the web around the world. It also explains the effect and challenges faced in fake news proliferation on the social media platform. Many approaches and techniques to detect the fake news introduced by other researchers are clarified and compared in this section. This section also discusses the usefulness of the verified fact-checking portals to verify the fake news when it involves news in a non-English language especially in "*Bahasa Melayu*" which is also our focus in this study. Detection tools based on a classification approach and fact-checking portals using an expert's intervention approach are used as our conceptual model to understand the users' awareness in this research.

Fake News Definition and History Review

Fake news has a long history, dating back to the days before the printing press. False stories and rumours have undoubtedly existed for as long as humans have lived in communities where power is a factor. Until the invention of the printing press, the news passed mainly from person to person by word of mouth. For millennia, the capacity to influence what people know might be considered a valuable asset (Burkhardt, 2017). Today, 'fake news,' despite being a new term, has quickly evolved tremendously. According to Gelfert (2018), the phrase is used exclusively in cases where (typically) erroneous or misleading remarks are deliberately presented as news, and the claims are purposefully misleading by design. Tuters (2018) define fake news as "news stories which intentionally and verifiably untrue and could deceive readers." They expressly exclude other types of deceptive information, such as journalistic or political errors, rumours, or conspiracies unrelated to specific news pieces, and entertainment-oriented formats like satire. Wardle & Derakhshan (2017) believe that the content, underlying intentions of creators, and propagation of information vary, and that misinformation and disinformation can take many forms rather than a single clear-cut variety known as false news. So, most authors agree that fake news can be simplified as a misleading statement created intentionally to confuse readers/audiences.

Misinformation, on the other hand, is unintentionally false, whereas disinformation is purposefully untrue (Jack, 2017). Thus when considering fake news as a type of media content, one can distinguish between several types of incorrect, misguided, or falsified news based on multiple dimensions and features of the information provided. They are modelled after professional news media formats, although they differ in organisational methods and content (Lazer et al., 2018).

Challenges and Effect on Fake News Dissemination

Massive digital disinformation is becoming so ubiquitous in online social media that the World Economic Forum (WEF) has recognized it as one of the most serious risks to our society (Burkhardt, 2017). After ruling out the medium of dissemination and a lack of veracity as adequate criteria for what makes up fake news, two main issues remain: the intentionally manner in which propagators of fake news peddle false, unreliable, or otherwise deceptive information, and the manner in which the latter closely resembles the appearance and markers of trustworthiness of established news sources (Gelfert, 2018).

According to Tan (2018), there are seven challenges or threat of fake news. First is deliberate forgeries. Second is cherry-picking the facts, another way for false news to penetrate the media narrative for commentators on a certain event to purposefully use selected facts. Third, is conspiracy theories. Fourth is justifying morally repugnant viewpoints. Fifth is the presence of agent provocateurs exploiting existing social fault lines. Sixth is audio and visual mislabelling on purpose. Lastly, seventh is audio and visual distortions on purpose. So, there are

many issues and challenges the researchers need to meet to identify fake news when proposing detection and validation tools.

The effect of fake news proliferation to the society is extremely harmful. Many people are concerned about the consequences of misleading stories (also known as "fake news") that are widely disseminated over social media (Allcott & Gentzkow, 2017). According to Jost, Pünder, & Schulze-Lohoff (2020), subjects adjusted more aggressively downwards from the anchor as their awareness of fake news increased. When respondents who were unaware of the anchor information were provided with arguments that contradicted the anchor information, the effect of anchoring was lessened. Death, conflict escalation, political antagonism, and social fear have all been cited as serious consequences of fake news dissemination (Apuke & Omar, 2020). In short, the effect of fake news is disastrous and dangerous to society and global community.

Fake News Detection Tools

Most researches in the literature only propose methods and techniques for fake news detection. At the time of writing, it was difficult to search any articles that provide a list of tools to detect fake news in research publication databases. In Table 2.1, several popular applications or tools that use cutting-edge Artificial Intelligent (AI) technology to detect fake news are listed. These tools are gathered from Google search engine and carefully selected based on its availability and functionality.

Table 2.1 Popular applications for fake news detection

Tool Name	Capability	Platform	Availability
The Factual	Powered by an algorithm that daily assesses the reliability of over 10,000 news items.	iOS, Android, Chrome Ext.	Free
Logically	Fact and picture checking services are provided.	iOS, Android, Browser Ext.	Free
Fabula AI	Deep learning algorithms focus on the distinct characteristics of how misinformation spreads on the internet versus how more verifiable tales propagate.	Twitter	Free
Oigetit Fake News Filter	Offer reliable news use AI-powered false news filtration technologies.	iOS, Android, Web Browser	Free
Google Fact Check Tool	Aid fact-checkers, journalists, and researchers in finding what has and has not been refuted throughout the world.	Web Browser	Free

Most of the techniques to detect false information presented in the literature need to confront with a classification problem, which aims to correlate labels such as rumour or non-rumour, true or false with a specific piece of text. In some studies, those who used Machine Learning and Deep Learning approach to predict either the class of documents or events, or to assess their credibility, outperformed those who used other approaches such as data mining techniques, including time series analysis, and exploited external resources (e.g., knowledge bases) (Bondielli & Marcelloni, 2019).

Fake news detection approaches consist of features' extraction, which can be divided into two features, namely, content-based method and context-based method. Content-based methods rely on content characteristics, which are data that may be retrieved directly from text, such as linguistic qualities. Context-based techniques, on the other hand, are more diverse and often rely on contextual information, like user traits, social network dissemination factors, and other users' reactions to the news or post. The majority of techniques to identify false news have relied on content aspects for classification, with only a few approaches relying only on social-context models. Fake news detection and verification techniques, on the contrary, frequently combine content and context variables in their models (Shu, Sliva, Wang, Tang, & Liu, 2017). This idea is understandable, given that the social component of rumours may play a crucial role in boosting detection accuracy. There is no thoroughly examined benchmark dataset, particularly when it comes to the fake news problem. Consequently, given the large number

of various sub-tasks presented in the literature, doing an accurate and fair assessment and comparison of fake news detection algorithms is extremely difficult (Bondielli & Marcelloni, 2019). Figure 2.1 shows a summation of fake news detection approaches available in the literature.

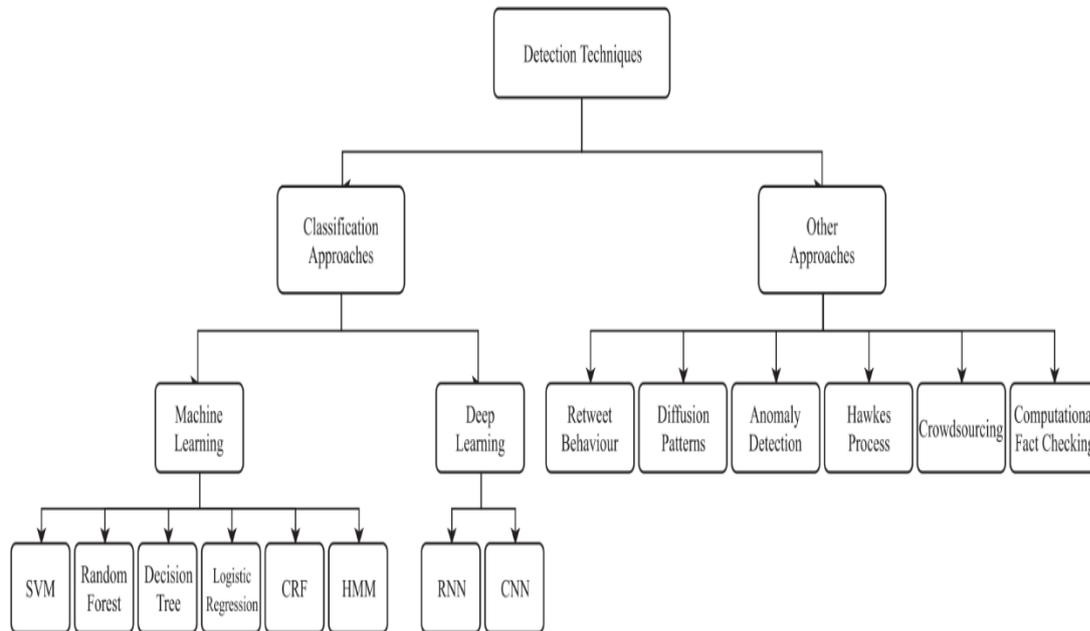


Figure 2.1. Different fake news detection approaches available on literatures

Fact Checking Tools

A critical factor to consider while validating fake news is how to undertake fact-checking to obtain a credible data collection of fake and true news. Shu, Sliva, Wang, Tang, & Liu (2017) present an overview of existing fact-checking techniques in the context of knowledge-based fake news modelling and identification. Human specialists are responsible to assess the authenticity of news in expert-orientated fact-checking. Websites like Snopes (Snopes, 2021) and FactCheck.org (FactCheck, 2022), for example, use this procedure. The fundamental challenge with expert-orientated fact-checking is the requirement of time and resources.

Based on a thorough literature study of fake news detection approaches, the classification approach has been identified as the best approach so far for detecting fake news on social media platforms. However, fact-checking is very important to assess the authenticity of the news with human specialist intervention. Since our focus is on news in *Bahasa Melayu*, we have identified two platforms that provide expert-oriented fact-checking services in the Malay language, namely *Sebenarnya.my* (2020) and *SemakanFakta* (2022). In this study we hope to understand the social media users’ awareness on the fake news detection tools and validation (fact-checking) tools.

METHODOLOGY

Research Site

This study aims to discover users' opinions on fake news detection and validation tools, as well as their understanding of the meaning of fake news dissemination and their awareness of the availability of fake news detection and validation tools. The primary data gathering method used is open-ended in-depth interview with six active social media users who frequently read the news on social media platforms. The research samples are selected only from Facebook and Twitter since these two platforms are the foremost source of news, and most of the fake news comes from these platforms (Hopp et al., 2020). The validation or fact-checking tools on news content in the Malay Language or *Bahasa Melayu* limit the scope of this study. The data is analysed using qualitative data analysis software Atlas.ti to look for themes and make an interpretation of the phenomenon.

There are several methods for conducting qualitative research, but phenomenology is chosen for this study. This is because it gives extensive, first-hand knowledge on individuals' experiences (Nichols, Kotchick, McNamara Barry, & Haskins, 2010). According to Moustakas (1994), phenomenological studies evaluate the texts with the primary goal of describing the lived experience from the participant's perspective. This method is selected because it allows the participants in the study to add meaning to their experiences with fake news issues and challenges. This method also allows participants not only to give a story about their reactions with fake news, but also to provide context on ideologies and norms around the topic. Figure 3.1 shows the procedures of phenomenology research approach based on Moustakas (1994).

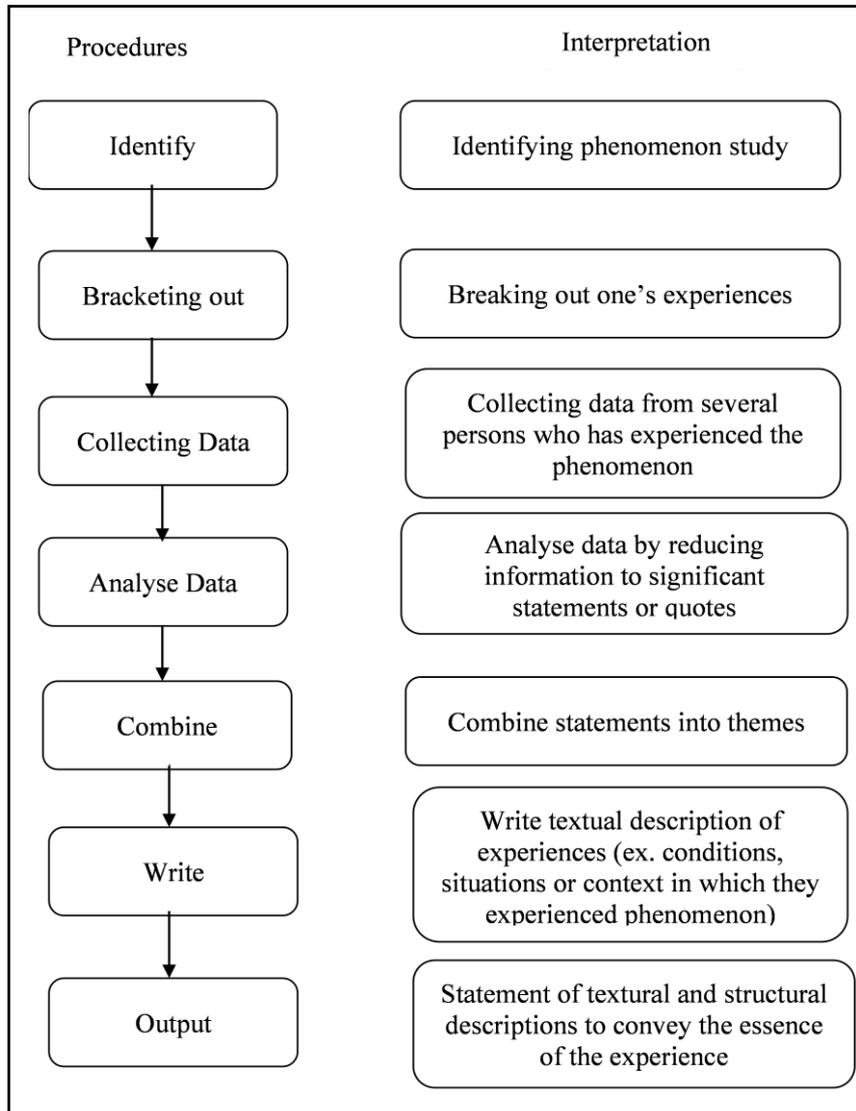


Figure 3.1 Procedures of Phenomenology Research based on Moustakas (1994)

The conceptual framework of this study is presented in Figure 3.2. There are two types of tools to identify the fake news; 1) the detection tool, and 2) the validation tool (fact-checking). The detection tools are those that use a classification approach since the latest and most of the detection tools are available for users currently using this approach. The validation tools or fact-checking tools are the ones that use expert intervention methods. This approach requires human experts or reputable journalists to identify and verify the news and provide feedback on the news to give more understanding about the issue. We want to understand social media users' awareness about these two types of tools by interviewing and asking their opinion on the impact of these tools on combating fake news in social media.

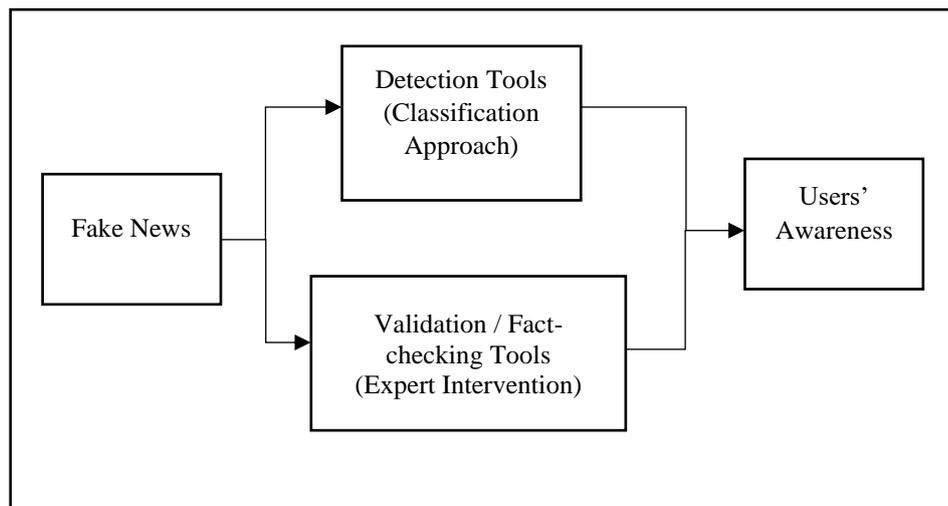


Figure 3.2 Conceptual Framework of fake news detection and validation tools' awareness

Sampling

Sampling strategies or a specific plan for getting a sample from a part of the population is referred to as a sample design. In this study, purposive sampling approach is used since a specific environment, group of people, or activities are purposefully chosen (Ahmadu, 2019). For this study, the chosen active social media users are those who frequently read news on social platforms in Malaysia.

A total of six respondents participated in the study, which is within the suggested size range for phenomenological research. According to Creswell & Poth (2016), the sample size for this research approach should be between 5 and 25 people who have a direct link to the study event. Another study by Englander (2012) said while selecting a sample size, the researcher must allow the participants to have the requisite experience to answer the study questions. In this study, the respondents are chosen from the researchers' friends, relatives, and suggestions from other friends. The respondents need to inform the researchers about their frequency of reading news on social media, specifically Facebook and Twitter, as proof that they are active in social media and eligible for interviews. According to Hopp et al. (2020), these two social media platforms are the major source of news which are mostly fake. The six respondents come from different background. Three (3) are male students, aged 19-20 years old, two (2) are female civil servants aged 36-37 years old, while one (1) is a female from the private sector, aged 33 years old. Three of them live in Penang, two live in the Klang Valley, while another lives in Kelantan. During the interview, four respondents speak in English, and the other two speak in the Malay Language or *Bahasa Melayu*.

Data Collection Method

In this study, the researcher used open-ended in-depth interview to collect data. Since in-depth interview is unstructured, the direct conversations with the respondents are able to elicit the participant's sentiments, opinions, and emotions about a given topic. The advantage of conducting a personal interview is that it includes a direct interaction between the interviewer and the interviewee, which leads to an open-ended answer from the participant. In-depth interviewing is a subjective research method that entails directing intensified one-on-one discussions with a small number of respondents to learn about their perspectives on a certain idea, programme, or scenario (Boyce & Neale, 2006).

The respondents are each asked five open-ended interview questions so that the researchers can learn more about their perceptions and knowledge of fake news on social media, their awareness about fake news detection and validating tools' availability and as well as how they identify and validate the news. The researchers make sure that all interview questions are phrased accurately to minimise any misunderstandings. The interview questions are created with the goal of assembling in-depth information to answer the study's research questions. The procedures for the data collection process include:

- Obtaining permission to carry out the research.
- E-mailing the consent forms to all potential participants.

- Scheduling all virtual conversational interviews.
- Organising interviews.
- Transcribing interviews.
- Analysing the information gathered.

The researcher uses an audio recorder application on a mobile phone when interacting with the respondents. The purpose of audio recording is to capture the interview in a sensitive and detailed manner. Each interview is limited to ten (10) minutes. The time frame specified appears practical, as it will allow the researcher and respondents to get to know one another and gather the essential data.

The validity and reliability of the data are the most common concerns that occur in qualitative interviews. According to Gani, Rathakrishnan, & Krishnasamy (2020), a pilot test is carried out with the goal of ensuring validity and reliability in any research. In this study, a pilot test of the interview is conducted before proceeding with the actual interview, adhering to an interview procedure that included a set of rules, guidelines, and questions tailored to the research questions. Several steps are ensured when conducting the pilot test that include participants, settings, research instruments, and three procedures of interview session (pre-interview, during-interview, and post-interview) stages. The pilot test interview allows the researchers to clarify and fine tune several questions in order to improve interview techniques during the actual interviewing. The responses from the two respondents who spoke in *Bahasa Melayu* are translated into English and validated by a senior lecturer at a local university.

Data Analysis Method

The collected data are analysed using qualitative analysis software Atlas.ti. This technique enables the determination of respondents' opinions and responses about fake news to be categorised into trends. To accomplish the mission, the transcribed interview data is first analysed using Atlas.ti. This includes coding, labelling, and categorising. During the first coding step, descriptive codes are assigned to pertinent bits of data. After that, all the codes are reorganised into categories, based on keywords or repeating prominent themes that surface in the sets of data (Zhong & Ouyang, 2010). Finally, when secondary codes emerge, the initial codes are thematically regrouped and renamed.

Ethical Consideration

Based on ethical rules published by Universiti Utara Malaysia, privacy and confidentiality are protected throughout the study process. During the data collecting process, all respondents are given a Participant Information Sheet to explain the goal of the study, what they are expected to accomplish, and how to protect their privacy. Participants are asked to sign a Consent Form after reading and comprehending the information page. Then, they are allowed to participate in the interview. The identities of the participants do not appear in the interview transcripts. Instead, numerical pseudonyms are used so that their identities are kept private. All the recordings are kept in a secret folder with security functions and will not be exposed to anyone.

RESULTS

This section presents the findings of the study. The data analysis performed using the software, Atlas.ti managed to synchronise the codings from the transcription interview and identify several major themes. Figure 4.1 shows the code groups for RQ1 theme using Open Network layout in Atlas.ti. Figure 4.2 shows the code groups for RQ2 theme and Figure 4.3 shows the code groups for RQ3 theme. From this theme, we can understand the phenomenon in this study. The results of the study are presented for each research question in tabular form. Themes are also examined and interpreted to help increase comprehension. The responses of the respondents are further utilised to support the drawn theme.

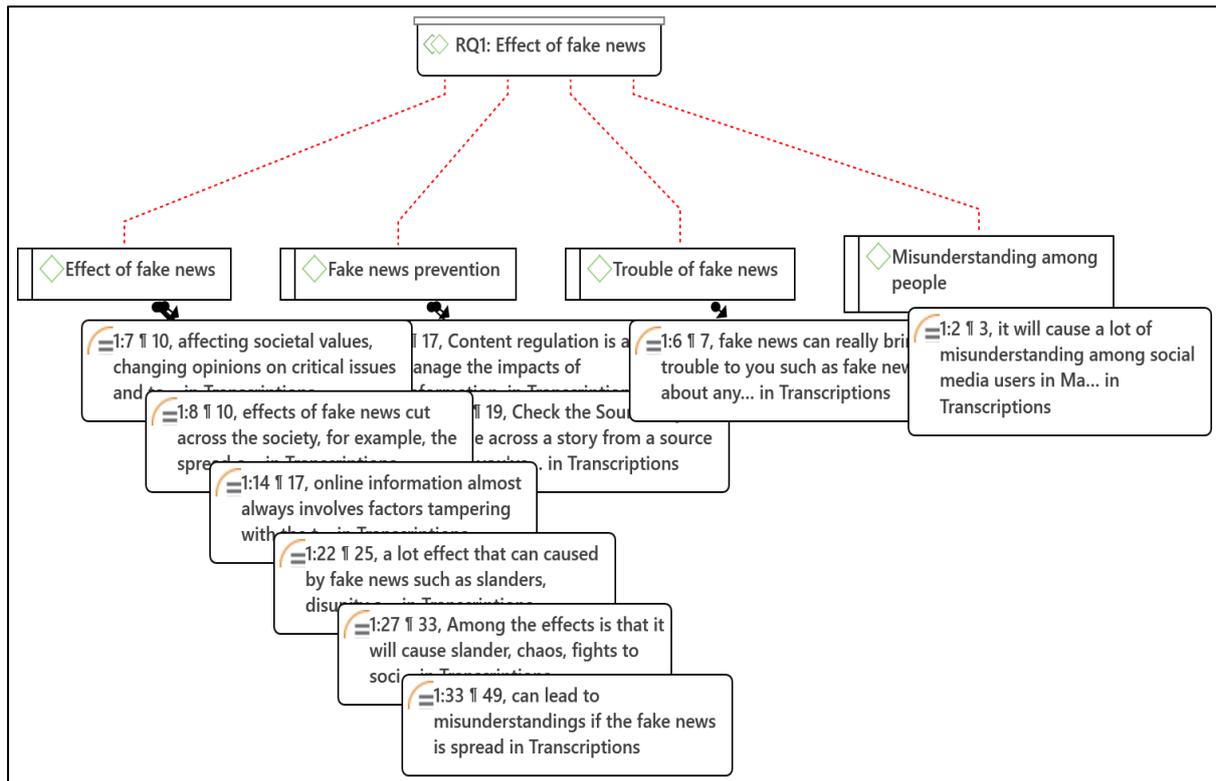


Figure 4.1: Theme 1- Identification using Open Network layout

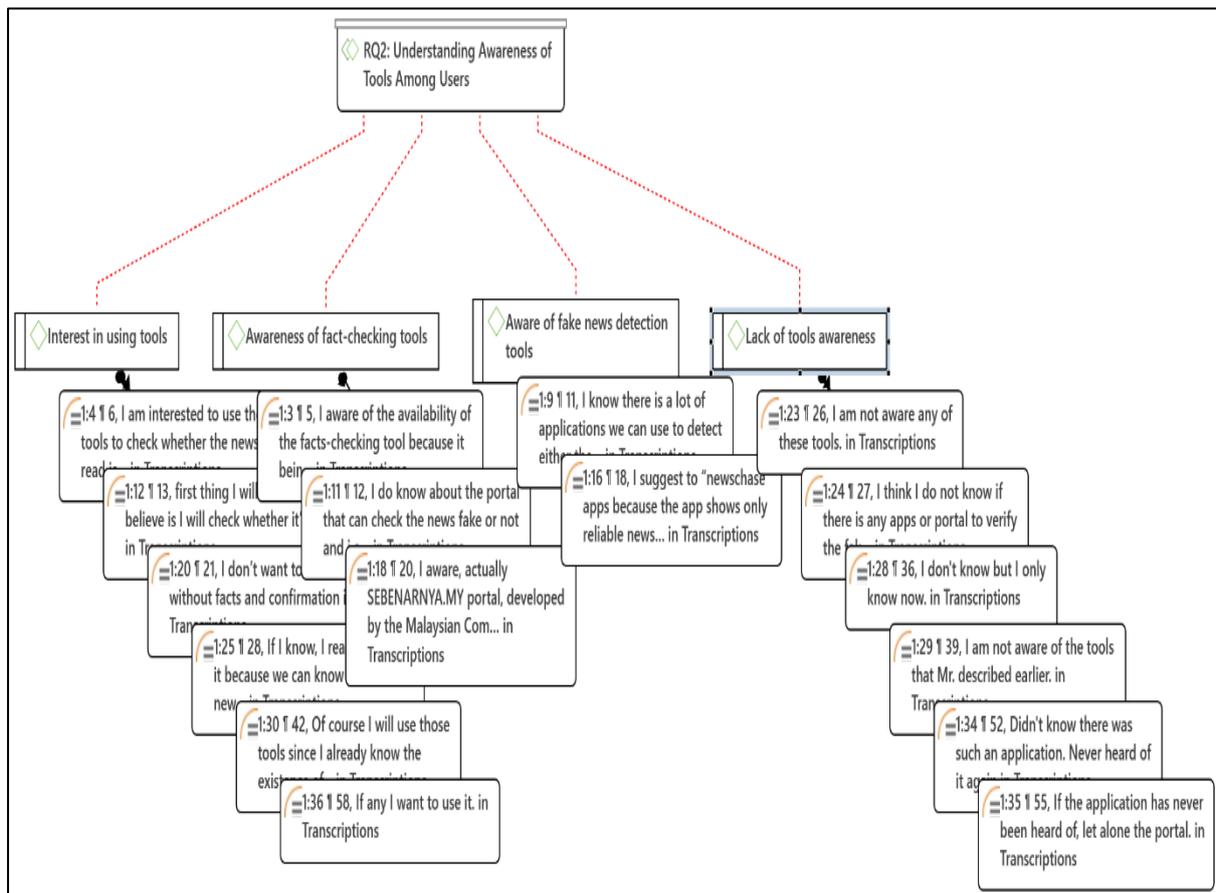


Figure 4.2: Theme 2 - Identification using Open Network layout

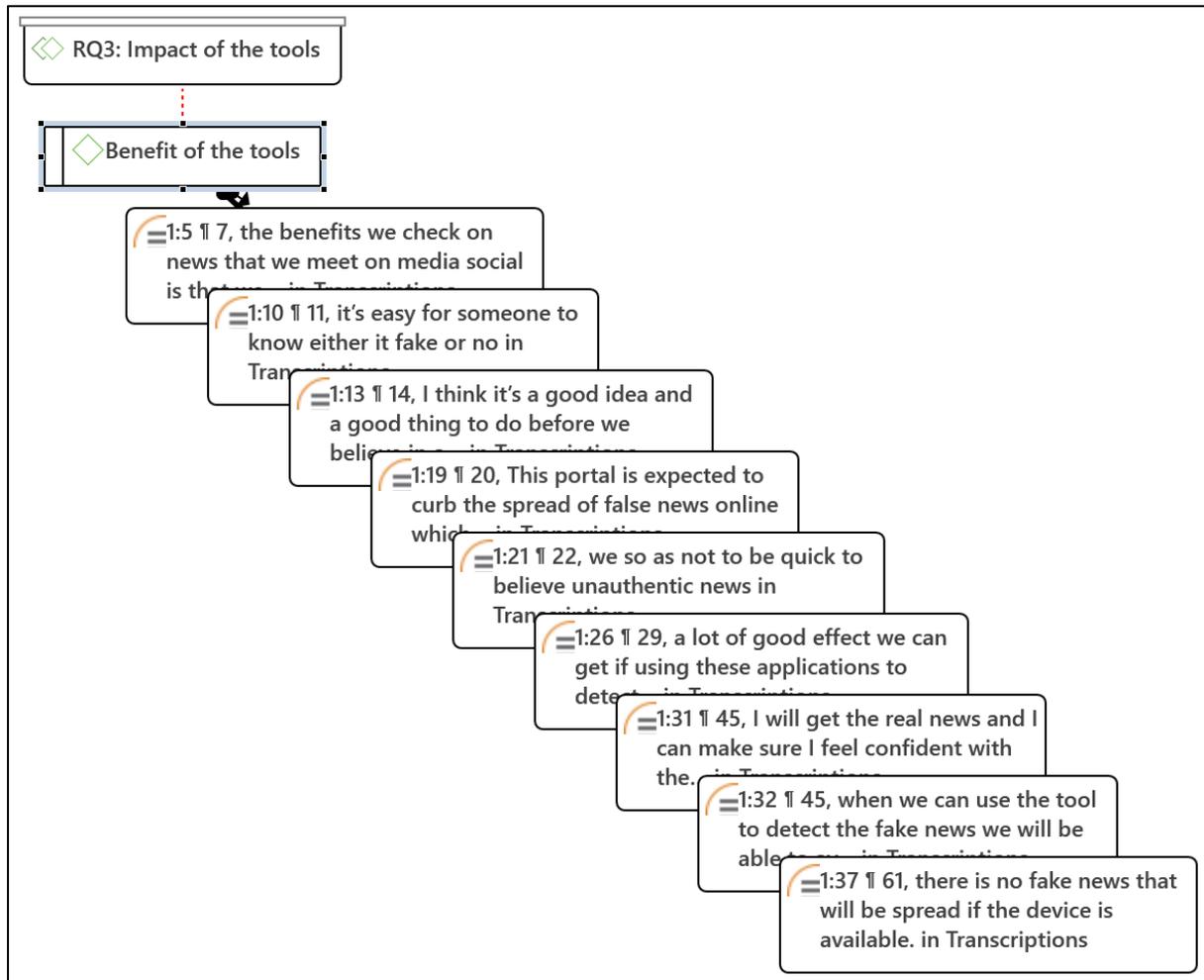


Figure 4.3 Theme 3 - Identification using Open Network layout

In answering the first research question, “What does fake news dissemination mean to social media users in Malaysia”, the major themes reveal that respondents view it as the adverse effect the fake news have towards social media users and society.

Table 4.1 The effect of fake news theme

Major Themes	Core Ideas
Effect of fake news	Adverse effect of fake news Fake news prevention Misunderstanding among people Trouble of fake news

Effect of fake news. In the first theme, we found out that the respondents gave several adverse effects of the fake news such as slanders, disunity among society and chaos in the country. The respondent statement reads;

“I think there is a lot effect that can caused by fake news such as slanders, disunity among society and chaos in the country.” (R4)

Some respondents also worry about the misunderstanding among people if fake news is spread. This response is demonstrated by the participant's statement, which reads:

“The effect can lead to misunderstandings if the fake news is spread.” (R6)

In answering the second research question, “What is the social media users’ awareness of fake news detection and

validation tools?”, the major theme presented here is the understanding of awareness of tools among users.

Table 4.2 The understanding awareness of tools among users’ theme.

Major Themes	Core Ideas
Understanding awareness of tools among users	Aware of fake news detection tools Awareness of fact-checking tools Interest in using tools Lack of tools’ awareness

Understanding awareness of tools among users. In the second theme, we found that three out of six respondents aware about the availability of fake news detection and fact-checking tools. One of the respondents suggests a new tool to read the validated news as the statement reads;

“I suggest to “newschase” apps because the app shows only reliable news and is saving lot of time by showing the jest of the news article, providing option to go into the full story if needed could improve the user interface a bit, but still better than most of the leading news apps.” (R3)

In this theme, it is revealed that all the respondents are interested in using these tools to ensure the news they read is real and not fake. A few are not aware that there are tools or applications that can detect and verify the fake news. This situation is worrying because if this group of people cannot compare between fake news and real news and share that fake news to their friends, it can bring harm to the society. The respondent statement that proves this claim said;

“I think I do not know if there is any apps or portal to verify the fake news give explanation about fake news.” (R4)

In answering the third research question, “How do fake news detection and validation tools influence social media users’ opinions on information safety?”, the major theme we can conclude here is the impact of the tools.

Table 4.3 The impact of the tools theme

Major Themes	Core Ideas
Impact of the tools	Benefit of the tools

Impact of the tools. In this theme, all the respondents agree about the benefit of these tools that can prevent proliferation of fake news. One of the respondent statements, which reads;

“I think it’s a good thing because it’s easy for someone to know either it fake or not.” (R2)

Another respondent statements, which reads;

“I will get the real news and I can make sure I feel confident with the news and can make sure the news is true.” (R5)

DISCUSSION

This section highlights the findings and major themes of the respondents’ answers in this study. The essential ideas are expanded, and relevant literature used to explain and support the respondents’ responses.

Effect of the fake news. In this study, most of the respondents agree on the adverse effect of fake news dissemination. They appear to be more stressed from the adverse effects caused by fake news that are related to medicine and health issues, apart from political and social issues.

This finding is supported by another study by Apuke & Omar (2020), that mentions death, war escalation, political antagonism, and societal panic as significant consequences of spreading fake news. While the claim made by the two authors is very intense and heavy, involving war and politics, findings from this study show the concerns are more related to social and health issues. The area and political situation in the country where the study is conducted might influence the effect of the fake news revealed from this finding. It is possible that different effects of fake news might differ based on the political situation and area of the research location.

Understand the awareness of the tools among users.

This study shows that half of the respondents are not aware of, nor do they realise the importance of tools to verify the news that they read online, especially on social media. This finding is similar to other studies in other parts of the world. Despite the negative consequences of spreading fake news, fake news awareness is still inadequate in Nigeria (Apuke & Omar, 2020). The authors' claim supports our findings and reveals that much effort is required to reduce or eliminate fake news on digital platforms. It is pertinent that the relevant authorities be aware of this finding so that all social media users can be informed that such tools exist to verify the news that they read. By increasing the exposure of such tools via social media campaigns, the dissemination of fake news amongst social media users can be reduced.

Impact of the tools. Feedback from respondents' opinions concludes that using the tools can avoid slander, chaos, and fighting caused by fake news, showing a great benefit of tools on information safety. This finding explains the positive impact of the tools toward information safety. Research conducted by Chauhan & Palivela (2021) also supports our finding and agrees on the benefits of the tools. The finding from this reveals that the goal of exposing fake news must be for the benefit of society. It shows that users know the benefits and positive impact on the society by using the tools. These positive effects can only be achieved with high self-awareness from social media users and support from the government.

CONCLUSION

The study provides useful insight about the adverse effect of fake news and social media users' awareness on fake news detection and validation tools. The researchers in this study are consistent in our belief that we must always be cautious and aware of the information that we read and share. As a social media user that depends heavily on the news on social media, we must understand that sharing incorrect information can have serious implications, not only to the community at large but also for individual health especially when it involves both the mental and physical aspects. This study shows that we cannot deny the importance of awareness from the community to verify and validate the news before they read and share the news. The emergence of sophisticated tools to detect and validate the news can help to simplify the task as they are freely available. By using these tools, people can make a better interpretation of certain issues while authorities and decision-makers can suggest correct decisions, especially when implementing important policies and regulations. However, there is still a lack of awareness among social media users on the importance of these tools to prevent the dissemination of fake news and it needs serious efforts from the authority and the community itself. We propose a new approach to educate and provide awareness about the importance of using fake news detection and validation tools to verify the news. The ultimate purpose is to ensure the people can live in harmony and prevent unnecessary misunderstanding caused by fake news.

This study can provide a better knowledge of the consequences of fake news on society as well as the level of awareness of using fake news detection and validation tools among Malaysian media users. We recommend further studies to be undertaken to include more variables to provide better and deeper understanding about the awareness of users in using fake news detection and validation tools. We also suggest that a mixed-method approach of combining both qualitative and quantitative data be adopted to increase reliability and validity of the study in future research.

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