



BLIND MEDIA TECHNOLOGY INTERFACE: HOAX CHECKING BASED ON APPLICATIONS AND WEBSITES FOR THE VISUALLY IMPAIRED

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ABSTRACT

The hoax phenomenon can easily be seen on a number of social media. Hoax spreading is also often found in a number of WhatsApp Group, including WhatsApp Group, which is followed by people with visual impairments. Therefore, the purpose of this study is to investigate the phenomenon of the spread of hoax among people with visually impaired conditions, and the stages of the steps taken by WhatsApp Group administrators among people with visually impaired information are to check hoax information, this is done through a hoax information checking program, this checking program is available in the form of websites and applications. This research uses the descriptive research method. The data obtained were generated by means of questionnaire collection to detect symptoms of hoax spreading among adolescents with visual impairment. The respondents collected were 60 respondents. Furthermore, research data were obtained by testing hoax information checking through a number of hoax information checking programs. The results showed there were symptoms of hoax spreading among visually impaired people caused by ignorance of the way to check the truth of the information. At this stage of checking the accuracy of this information, there are some difficulties experienced by WhatsApp Group administrators with the visually impaired in using the information checking program which is based on the website or application.

Keywords: interface, application, website, hoax, visually impaired.

1. INTRODUCTION

Information on financial loan offers, ways of medical treatment, offers of education and training, as well as information on assistance for certain facilities, are often received by people with visual impairments through SMS, WA, and various other digital-tech information media. Such offers often foster certain hopes and motivations in persons with disabilities. This is due to the relatively limited socio-economic conditions and literacy education possessed by some persons with disabilities. So they experience disappointment if the information is known as a hoax or pseudo offer.

Hoax is a phenomenon that appears along with the development of information technology. A hoax can be interpreted as the information that is not in accordance with the facts, with the purpose that to make people can trust the information. (Anisa & Rachmaniar, 2016). The roots of the emergence of hoaxes are sourced from the influence of the development of science and technology globally (Maulana, 2017), including social media development.

According to the research results of the Indonesian Telematics Society (Mastel), as much as 92.4 percent of the people get a hoax from social media (Paramastri & Gumilar, 2019). Social media such as Facebook, Instagram, YouTube, Line, and Whatsapp make it easy for users to spread messages in an efficient way (Santoso & Sjucho, 2017). Whatsapp as one of the most widely used social media platforms in Indonesia is referred to as one of the most widely used social media to disseminate information about hoaxes (Cahyani, 2019). Especially through WhatsApp Group, because one of the unique features of this application is its ability to improve communication within a group (Bouhnik & Deshen,

2014). It is not surprising that hoax information is found in WhatsApp Group.

In general, social and political problems dominate the dissemination of hoax information. Although there is no doubt that economic motives are always behind the hoax issues (Nurhayati & Suryadi, 2017). Therefore, a number of individuals misuse the internet for fraud, and also the spread of hoaxes (Sugiarso, S.M.Lumenta, & Mamahit, 2017), so that's not a small number of victims are also affected by the hoax.

There is data that says that 70% of users have difficulty distinguishing between hoaxes with valid and reliable news (Palomo & Sedano, 2018). Various efforts have been made to prevent the spread of hoaxes that can harm victims, both materially and morally. Prevention of the strong flow of hoax information can be done by increasing public literacy through the active role of government, community leaders and communities, providing easy access to the right source of information on any hoax issue, conducting systematic and continuous education and effective legal action for the disseminator (Rahadi, 2017).

Therefore, along with the development of the spread of hoaxes on social media, then also emerged programs specifically created to anticipate hoaxes. The program is available in the form of websites and applications. These programs provide facilities for netizens to report or check the truth of certain information that is considered doubtful.

Hoax information checking programs are certainly expected to be used by everyone who intends to check information. The information checking is conducted in order to find out about the validity of the information. This program is certainly useful to prevent recipients of information from receiving misleading information.



Including recipients of information from the visual impaired. Because, hoaxes are not only circulating among social media users who are able to see, but also circulate in social media networks with visually impaired people.

With the support of a number of tools and assistance programs, people with visual impairments can take advantage of the advancement of information technology. Including the use of social networking media, such as WhatsApp. The use of the internet by students with visually impaired in sequence includes: WhatsApp, YouTube, ect (Hafiar, Subekti, & Nugraha, 2019). So many people who are visually impaired have membership in a number of WhatsApp Group. It is through WhatsApp Group that people with visual impaired receive the information shared by other members, including hoax information.

A number of WhatsApp Group administrators among visually impaired people have known the existence and function of hoax information checking programs, but only a few have tried to use it. So far they tend to rely on testimonials and hunches in sorting out the information hoaxes or not. Therefore, this study seeks to determine the phenomenon of the spread of hoax among people with visually impaired, and the steps of the WhatsApp Group administrators among people with visually impaired to check hoax information through hoax information checking programs available in the form of websites and applications.

2. METHOD

This research uses the descriptive research method. The data obtained was generated by collecting a questionnaire to detect symptoms of hoax spread among adolescents with visual impairment. The respondents collected were 60 respondents. The next step is to check the hoax information on research data that has been obtained using a number of hoax information checking programs. The program can be obtained in the form of a website and application. The selected informants are WhatsApp Group administrators from people with visual impaired and become administrators of WhatsApp Group, which contains members who also come from visually impaired circles.

The steps taken are to find out the authenticity of the information shared in WhatsApp Group, whose members are the number of people who are visually impaired. The information that is checked contains about the offer of sharing braille Al Qur'an, which can be obtained free of charge by contacting certain mobile numbers, accompanied by an appeal to disseminate the information to other parties, as illustrated in Figure-1.

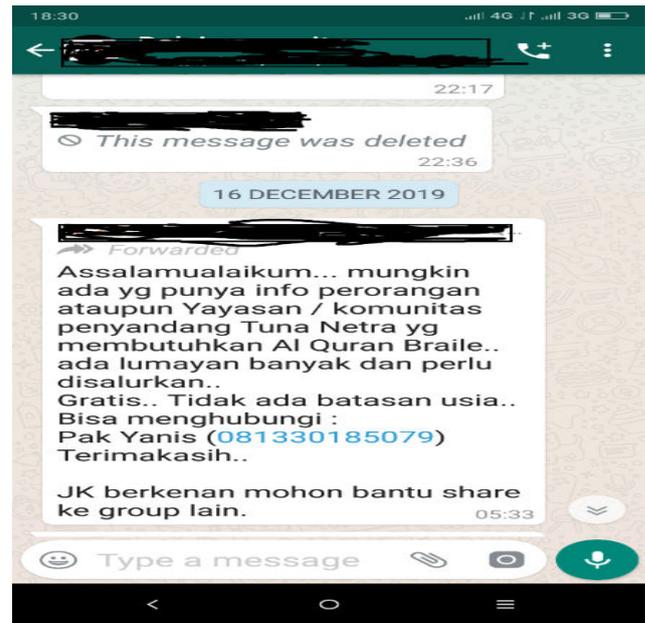


Figure-1. Example of a hoax that is spread over a WAG of visually impaired.

Next, three WhatsApp Group administrators were asked to check the information through a website and application-based information checking program. After all WhatsApp Group administrators check the information they get, a focus group discussion activity is carried out to assess the elements of effectiveness and efficiency in using the available information checking program.

3. RESULTS AND DISCUSSIONS

Through the media, a person is free to express his opinion in the public area. Anyone feels they have the freedom to explore each other's interests and consummate a particular group's interests (Maulana, 2017). However, these actions tend not to be accompanied by consideration of the negative impacts that can be caused. Related to the knowledge and skills in using digital-based communication media, most of the new media users are considered to have knowledge and ability on the concept of "how" to operate and utilize their digital communication media, but lack understanding in the aspects of "why and what are the consequences" "from the use of these media. Thus, only a few of the digital users really care if the information they get from social media comes from reliable sources (Santoso & Sjachro, 2017).

Demographically, social media users come from productive ages, including teenagers. Teenagers who are still students often experiencing various problems related to social media, such as virtual cyberbullying, and hoaxes (Hafiar, Lukman, Syuderajat, & Prastowo, 2019). Based on the results of field data collection on 60 adolescents with visually impaired, it is known that they have spread hoaxes due to ignorance that the shared information is hoaxes. As illustrated in Figure-2.

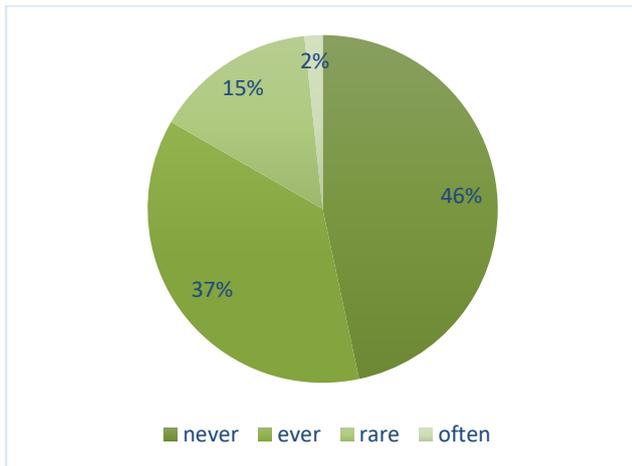


Figure-2. Hoax spreading behavior.

The problem with hoax information dissemination does not only occur in Indonesia. In India, hoax rumors also becoming a developing problem (Khurana, Kumar, & Kumar, 2019). Hoaxes, including false news, can cause misinformation on social media, especially on WhatsApp applications (Khurana *et al.*, 2019). Hoax information is also indicated by a variety of fraud attempts and can cause fear. Information that contains fraud and information that can cause fear without accurate facts has been regulated by the Indonesian government in law. The problem faced with now is how people can use the internet intelligently and not violate and even get caught in the criminal for violating the Information and Electronic Transaction Law (UU ITE) (Sugiarso *et al.*, 2017)

Hoax often appears on social media, this happens because on social media there is no gatekeeper as in mass media, so thousands of information can be spread directly and quickly every time (Anisa & Rachmaniar, 2016). The same thing also happened in the field data obtained. People with visual impairment state that social media is a medium that is often used to disseminate information, which in turn is known as hoaxes. As illustrated in Figure-3.

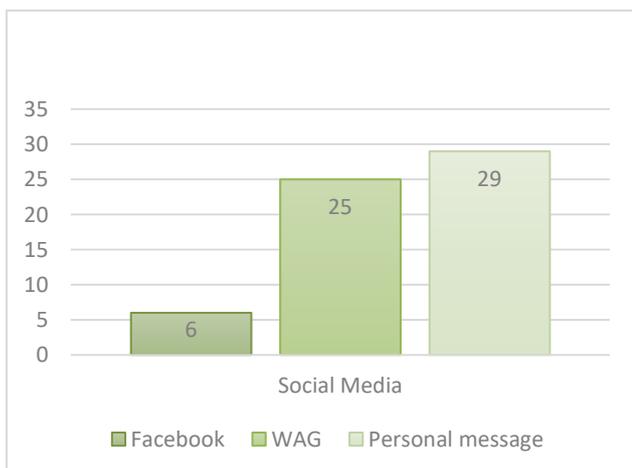


Figure-3. Social media used in hoax spreads.

Based on field data, adolescents with visually impaired have unconsciously spread hoaxes through WhatsApp. This is in line with the idea that students who are actually included in the adolescent group, use WhatsApp more than the professional group (Shahid, 2018). In addition, teenagers tend to consider WhatsApp as a communication application that is more 'comfortable' to use in their daily lives. Some critical problems that arise from using WhatsApp are exposed to information that is not reliable (Ahad & Lim, 2014). This non-reliable information is received and redistributed, making it a hoax that is difficult to control without filtering.

A hoax can be produced and spread through social media (Anisa & Rachmaniar, 2016). The lack of media literacy and the tendency to prioritize emotional aspects makes some social media users vulnerable to spreading hoaxes, one of them through WhatsApp (Ilahi, 2018). The tendency to consume and spread hoax news is influenced by information literacy factors of social media users.

Teenagers and adults have different ways of thinking and behaving which are influenced by a number of forming factors. Those who have been familiar with cyberspace since childhood will get used to accessing information through the internet. Based on the experience of those who have found incorrect or false information, and have also consumed information that states that the information received through the internet is not always true, therefore the information needs to be checked for truth so that it will make them more careful in responding to information. Individual behavior in receiving information on social media can be influenced by individual understanding factors and behavioral models of formal education, regarding media literacy. Individuals tend to have an understanding of the types of media that can be accessed or not (Tutiasri, Kusuma, & Sumardjijati, 2019). In addition, individuals also have a mechanism for filtering information based on cognition and intuition.

The new phenomenon regarding this hoax has raised serious concerns that WhatsApp can become fertile ground for groups interested in spreading misinformation (Resende *et al.*, 2019), especially information that is based on intentional misleading. Yet in communicating there are norms that must be maintained. In the WhatsApp Group, there are norms, relationships, and interactions (Ersöz, 2019), which need to be upheld, as communication takes place in a group that is offline.

Based on field data, it is known that in the WhatsApp Group that is participated in by visually impaired people, there is a type of information that needs to be watched. There are two types of information that are distinguished by persons with visual impairment, including information that they understand as hoaxes are information that contains false information with the aim of herding opinions, as well as; fraudulent offer information. This difference in information type is based on the awareness that if fraudulent offer information can cause material losses, while information that contains false information with the aim of leading opinions, is not considered to be directly detrimental to the material,



because it does not offer anything tempting and does not instruct something done by the recipient of the message. The number of types of hoax information circulating in a visually impaired WhatsApp Group that has been identified, including posts and responses to posts that contain hoax elements, are presented in Figure-4:

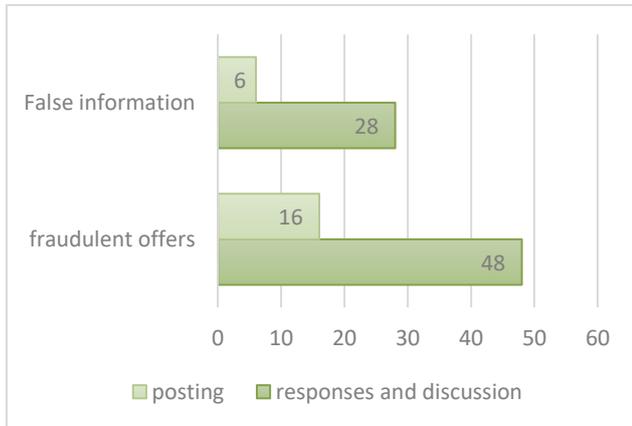


Figure-4. Hoax and fraud information that develops in WAG conversations.

In Figure-4, it is known that the amount of information that is considered as an offer containing an element of fraud is greater than the amount of false information which is only to lead opinions. The number of responses discussing fraudulent offer information is also more than the response and discussion of false information, distributed by one member. This is due to the interest and concern of other members of the offer information. Members who respond to fraudulent offers information tend to be members with a better level of experience and digital media literacy skills, seen from the level of technical skills or their position as WhatsApp Group administrator.

Social networks have provided sophisticated methods for individuals to communicate with each other (Salim & Jebakumar, 2015), including WhatsApp Group. The WhatsApp group has also been used as a medium of information and communication among academics, including young lecturers (Kurniasih & Riyadhsyah, 2018), which are spread from various regions. There is a study that says that as many as 41 percents of social media users in Indonesia claim to use Facebook frequently, 40 percent use WhatsApp, and 38 percent claim to frequently access Instagram. The data shown above reveal the number of users and frequency of accessing social media in Indonesia (Susilo, Christantyawati, Prasetyo, & Juraman, 2019).

The shift from "media" to "social media" in the digital age has implications in the process of forming identity (Manago, 2015), including the formation of individual self-identity during the transition from adolescence to adulthood. The formation of identity occurs during adolescence to adulthood by finding out who they are as individuals (Pandey & Mishra, 2017). More and more individuals join the online community, so their

identity will be formed in the social networking space in the form of online (Iroka, 2016). The position as administrator of a WhatsApp group that is engaged in special communication technology with visually impaired people shows that an individual is considered to have certain skills in the field of digital communication technology so that he is also considered to know about how to choose and sort out the information that needs to be watched.

The postmodernist era opens up opportunities for some people to use social media networks for the wrong reasons rather than using them to promote "the good" (Kumwenda, 2014). Although among social media users, there are known terms of constructive hoaxes. A hoax that is considered constructive, seems to be interpreted as a positive and tolerable hoax. But actually, a hoax is a hoax, if the contents do not match the facts and reality then it should be ignored.

There seems to be no 'disability gap' in the use of social media between people with disabilities and society in general (Morris, Mueller, & Jones, 2014). Because of digital inclusion for people with visual impairments can be realized by the presence of a number of assistive technologies (Cazini & Frasson, 2013). Therefore, it is time for even visually impaired people to filter hoax information through a number of available information checking programs.

From a technological approach, the hoax checker program can be used by the public to check the truth of news that indicates hoaxes (Juditha, 2018). One type of hoax is related to fake stories is Falsehoods for Financial Gain (Vasu, Ang, Jayakumar, Faizal, & Ahuja, 2018). By utilizing the hoax checker program, it is expected to prevent recipients of information from the material and immaterial losses. This hoax checker program can also be used by people who are visually impaired to avoid misinformation, which they receive from the WhatsApp Group they participate in.

The information literacy conditions of each group member with visually impaired are different. Therefore, the role of the WhatsApp Group administrator is needed to be able to be a supervisor to maintain the truth of the information that is spread in the WhatsApp Group it manages. There are several programs that can be used by WhatsApp Group administrators to check the truth of information shared by a member of WhatsApp Group, these programs include applications and websites that the WhatsApp Group administrators use to check information, as shown in Table-1.



Table-1. Application and website that the WhatsApp Group uses to check information.

Applications and websites that are referred to by WhatsApp Group administrators	
Applications	Website
Hoax buster	Kominfo.go.id
Awas hoax	Turnbackhoax
Anti hoax	Stophoax.id

Therefore, at this stage a check on the information contained in fig 1 by each WhatsApp Group administrator in one of the website-based information checking programs, including stophoax.id. The steps taken are to type the name of the site in the Google Search field, click on the site, fill in keywords, and click Search. The results of the checks made by the three WhatsApp Group administrators in the program show the results as illustrated in Figure-5.

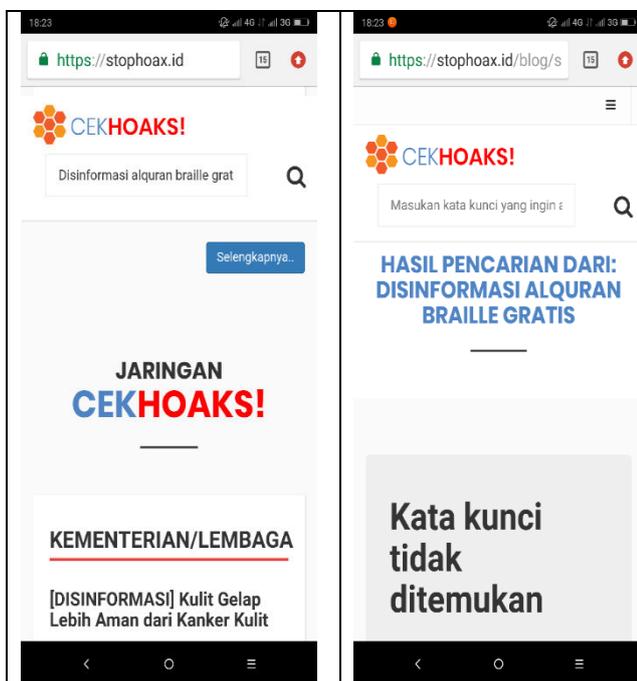


Figure-5. Checking information through the stophoax.id website.

At this stage, there are several difficulties experienced by WhatsApp Group administrators for people with visually impaired conditions. Among other difficulties typing to search for sites, there are ads that are distracting, do a search by scrolling to find the information in question, and failed to find the desired information. The

difficulties experienced by WhatsApp Group administrators who attempt to check the truth of the information shared in WhatsApp Group can be related to the user-friendly appearance of a program.

Users prefer to use a simpler checking system and more user-friendly checks (Bucko, 2017). The same goes for WhatsApp Group administrators for people with visually impaired conditions. However, user-friendly design is not identical to raw text, without the potential for web-based presentation multisensory. This means that website developers must be aware of and sensitive to the needs of users with disabilities (Laxton, 2002). Although the main principle in creating a user-friendly interface is to prioritize segments that are the main users in utilizing the new possibilities that are provided by ICT (Davidavičienė, 2008).

Practitioners who work with individuals with visual impairments need to know for certain about the application they are making and are competent in using it (Griffin-Shirley *et al.*, 2017). Therefore, the user interface design can be used by the blind by setting specific usability requirements that are unnecessary for sighted users (Alonso, Fuertes, González, & Martínez, 2008). Some interface requirements include a display that is easy to learn, nice to see, and user-friendly. (Pratama, 2018). Views that are easy to see tend to display attractive color combinations, so screens with poor color combinations tend to be less user-friendly. "(Mohan, Mathur, & Reddy, 2015). This was also revealed by the WhatsApp Group administrator who is in the low vision category.

Based on this, these requirements focus on task adequacy, dimensional trade-offs, behavior equivalence, semantic loss avoidance, and device-independence. (Alonso *et al.*, 2008). However, the user-friendly aspect is not the only factor that will cause satisfaction in the user, because the user experience is not only dealing with the user interface but aspects of the overall user experience (Chan, Maharani, & Tresna, 2017). Therefore, the WhatsApp Group administrator seeks to find the truth of the information he wants through other means, until his search objectives are met.

Then, then try the search technique by using Google search directly without typing the name of the information checking program site. When typing keywords, some relevant information appears and makes it easy for WhatsApp Group administrators to directly click on some of the available urls. One of the site recommendations that appear at the top, when typing the keyword "free braille Alquran" is kominfo.go.id. Whereas when typing the keyword "Free braille Quran hoax", the site that appears and is recommended at the top is stophoax.id, as illustrated in Figure-6.

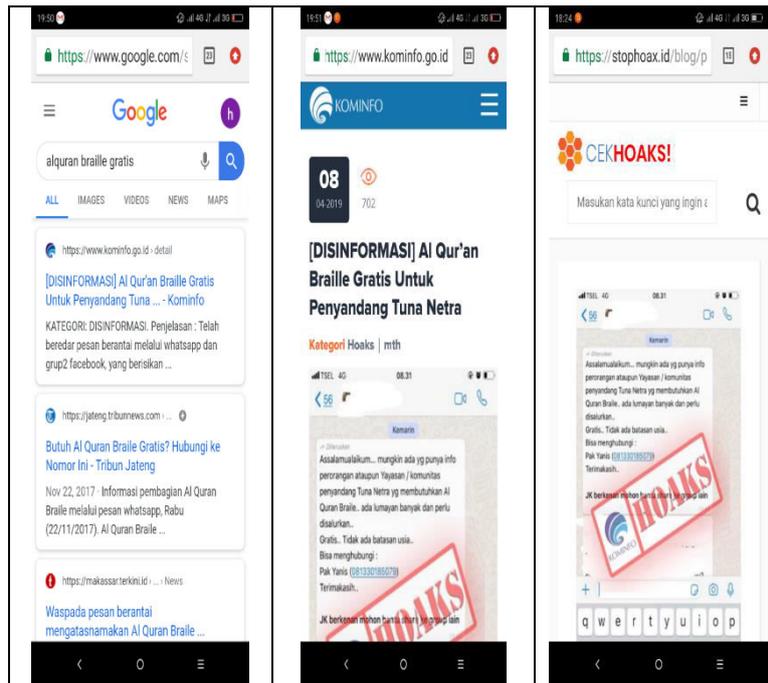


Figure-6. Checking through google search.

In principle, the interface presented via google search is felt to be easier to use by WhatsApp Group administrators when checking information. This is due to people with visual impairments who become WhatsApp Group administrators are familiar with the appearance, features, navigation, and use of the program. This means that the Google search interface design is considered to provide a lot of convenience in operating it. In interface design, there are several design factors that need to be considered such as organizing tasks, using appropriate terms, the order of choice, layout, graphic design, short cut for expert users, online help, error correction, and selection mechanism (Nurlifa, Kusumadewi, & Kariyam, 2014).

Some of the criteria mentioned by WhatsApp Group administrators from people with visually impaired include Efficient (easily installed, easily updated, intuitive, easy navigation, and easy to remove) and effective (no need for additional software, providing accurate results, and anticipatory will error). As for the elements that are considered interesting to use a particular program, including information checking programs to find out hoaxes or not, among others: easy to learn, easy to use on several different handsets, and easy to teach to people with disabilities.

4. CONCLUSIONS

Based on the results of field data collection in adolescents with visual impairment, it is known that they once spread hoaxes due to ignorance that the shared information was hoaxed. The adolescent with visual impairment said that they had spread hoaxes through WhatsApp Group and personal messages, due to the lack of information literacy on how to check the validity of information.

In WhatsApp Group conversations for visually impaired communities, the amount of information considered an offer that contains an element of fraud is more than the amount of false information that is only trying to lead opinions. The number of responses discussing fraudulent offer information is also more than the response and discussion of false information, distributed by one member. This is due to the interest and concern of other members of the offer information. Members who respond to fraudulent offers information tend to be members with a better level of experience and digital media literacy skills, seen from the level of technology skills or their position as WhatsApp Group administrator. In addition, WhatsApp Group administrators are encouraged to be able to check the validity of information through several information checking programs available online through their smartphones.

At this stage of checking the accuracy of this information, there are some difficulties experienced by WhatsApp Group administrators for people with visually impaired conditions. These difficulties include typing in to search for sites, there are advertisements that are distracting, do a search by scrolling to find the information in question, and failed to find the desired information. The difficulties experienced by WhatsApp Group administrators who attempt to check the truth of the information shared in WhatsApp Group can be related to the user-friendly appearance of a program.

Therefore WhatsApp Group administrators among people with visually impaired, prefer to check via google search. The interface presented via google search is felt to be easier for use by WhatsApp Group administrators to check information. This is due to people with visual impairments who become WhatsApp Group



administrators are familiar with the appearance, features, navigation, and use of the program. This means that the google search interface design is considered to provide a lot of convenience in operating it.

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