

Analyze the Impact of Unwanted Misinformation on Social Sites and Propose the Steps to Prevent it.

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Abstract – *Today's world is much bigger because of social media. The user of social media is continuously increasing all over the world. Today the world is full of digitalized, and news is flooding the air. People all over the world are sharing and connecting through social media. The benefits of social media are wonderful, but the main problem is it has a huge impact on unwanted misinformation, and from this problem which steps should be applicable to control it. The main purpose of our work is to analyze how misinformation is spreading and the impact of misinformation on social sites as well as which steps, we should take to control it. The result of our study will find a way to prevent the impact of unwanted misinformation along with finding ways to control it. Another thing is this study will help to filter out the impact of unwanted misinformation and to find. Our study will ensure misinformation and impact-free social sites.*

Keywords– **Social sites misinformation impacts, Spreading fake news, prevention.**

1. INTRODUCTION

The present world is more digitalized based on technology. Modern technology has already invented many more devices like mobile, the computer, satellite, etc. people of all over the world can easily access the internet anywhere in the world. By using those devices, people can easily use social sites. The number of users is continuously increasing from time to time. That is why the huge impacts are raising as well as misinformation. On the other hand, it is quite complicated to control. The major problem in social media is the impact of misinformation. There are so many impacts of social sites like depression, anxiety, lack of privacy, etc. In recent times, social media is a huge platform to spread misinformation. People are posting and sharing information without judging that which one is right, and which is not. They desperately doing this. Another big chance to spread misinformation is to exchange misinformation by pair connecting social media users. The solution for controlling misinformation in social sites can vary from different angles. Like, the social media user must accept the security and privacy if it is sent by the

other neighbor users. One neighbor should choose a trustworthy neighbor on social media sites. This would be an outstanding thing to prevent spreading misinformation on social sites. We made a solution that can significantly reduce misinformation on social sites.

1.1 Problem statement

In recent times, the number of users of social media is incredibly increasing and they like to share information among themselves. Also, they are spending a couple of hours on it; especially the young generation is very much active in this platform. Because of this problem, multiple types of social media impacts are occurring day by day. Consequently, many online crimes are growing, and unnecessary false news is being overflowed on this site.

1.3 Research Objectives

- a. Analyzing the basic impact of misinformation on social sites.
- b. Determining the factors for false news spreading through social sites.
- c. Proposing suitable measurements to prevent misinformation from social sites.

2. LITERATURE REVIEW

Recently people are using social media for doing so many purposes and they are spreading so much misinformation for taking advantage. As a result, behind this purpose there are many impacts of misinformation are arising. Nowadays the most impact of social sites on politics is the critical thing. Today's generation gets political information firstly from social media and they judge it without any proof because all news on social media is not true all the time. That's why they are getting unwanted misinformation from social sites.

Most people of the world currently using social media. They are sharing misinformation and connecting. They are creating content, videos, memes, and so on. They are not judging which is wrong and which one is not. That is how the misinformation on social media is directly impacting society.

In addition, the misinformation of social media has a bad impact on online business. Some company is leading their company with trustworthiness, and they deliver their product to customers without any hassle. On the other hand, some online business companies use social media and spread misinformation over social sites. That is why real business companies cannot maintain their job finely. In recent years, COVID-19 is the main topic all over the world. After invented the COVID-19 vaccine was, social sites were full of misinformation. People were sharing fake news about the vaccine. They were talking about side effects, not immunity, and so on. During the lockdown, people were desperately using social media. They did not even judge the misinformation. But after days are gone, people were trying to understand the misinformation. They are now depending on television, newspapers to get real information about all the situations.

3. METHODOLOGY

This section will be discussed about the method that how we collected for our research. we choose a quantitative approach for our data collection. Now the quantitative approach is a type of study in which we collected reliable and actual data for this study. During the survey period, our quantitative surveys are meant to be simply understandable by respondents.

3.1 Data Collection Methods

Quantitative data is the value of data expressed in numbers. In it, each data sets have distinct numerical values. Those data are understandable to calculate mathematically or statistically analyze for finding our goal. Our question was like 'how many, 'how much, 'how often, and so on. These values are applicable to put into mathematical equations easily.

Our research focuses on the impact of misinformation on social media, to determine a solution to the impact as well as the management of misinformation transmitted on social media. One of the most productive techniques we used is we have sent questions for our research purpose or surveys to a specific set of people. The goal of a survey is to collect data for mapping purposes. Our Surveys were used to collect basic data about big groups of individuals, such as their activities on social sites, beliefs about misinformation, and what they think about the misinformation as well as what they think to protect it. Our survey works for collecting data for research or analysis. We analyze the main theme and sub-question are both on public perceptions. The analysis also aims to learn more about the impact of misinformation on social media which will necessitate the collection of data from suffered people. Some victims are hesitant to share their stories on a public forum. For those people, a survey is a good approach to gather information. The analysis is the process of examining a process or interrogating a specific person sample to obtain statistics on a service, product, or technique. The survey data from this method can be used by the researcher to determine what the participant is thinking at any given time. To gather information, we employed survey questionnaires. Our main goal is to gather a large amount of data in a short period. While it has some drawbacks, it would be significantly less expensive than most existing primary data gathering methods and would make retrieving

vast amounts of data considerably easier. The survey should be valid and trustworthy. The validity and reliability of the survey questionnaire are the most important factors to consider when researching to get a better outcome. Validity is necessary for precise evaluation. This is done by posing questions regarding the information that needs to be gathered. In many cases, exploratory qualitative research is required. Measurement precision, on the other hand, is a problem for Reliability. Low validity is caused by asking the wrong questions frequently, resulting in inaccurate data.

3.2 Data Sampling

The data for this study came from people who use any social media, and all of the participants were over the age of 18. According to The Digital Research, a report issued in February by We Are Social, the number of people who use social media is over 45 million. We could be able to collect data from a small number of people from a vast population in a short amount of time using the online survey. Because 85 people filled out the survey, the sample size is only 85. The percentage was set to 30 and the confidence level was set to 93% to construct the confidence interval. As a result, the confidence interval for the collected data is 8.05.

3.3 Data Collection Strategy

We intend to collect data for our study via questionnaires. The data was acquired from a wide range of people in different locations in Bangladesh. Individuals that use. The key data collectors will be social media in any form. However, due to the limited size of the survey, exploratory sampling is used. An exploration sample is used to go deeper into the results of a tiny fraction. Because the study's population is so large, exploratory samples will be employed because there isn't enough time to evaluate the

complete population. To acquire a better outcome for our study, we'll strive to collect data from about 150 individuals in less than two weeks. An online form was used to select participants at random. Anyone with an internet connection is welcome to take part in our surveys. Our questionnaires will be sent to participants by Facebook, email, and other methods. An internet survey is a name for this form of survey. Using the internet or online surveys can shorten the time between submitting a questionnaire and obtaining a completed response. This internet survey is free to complete. Participants will also be allowed to perform for a reasonable fee. We will not divide the participants into two groups: those who have encountered rumors on social media and those who have not.

3.4 Data Analysis

We have gathered and precisely structured the raw data for future analysis after gathering our quantitative data through an online survey. We hope that this will allow us to answer the research questions and identify answers that apply to the situation.

3.5 Data Preparation Plan

Before we can study the data, we must first obtain, process, and organize the raw data from the survey in a way that enables future analysis. Cleaning, integrating, converting, and decreasing raw data to prepare it for analysis is known as data pre-processing. The raw data were acquired using an online survey. The original data has been retained and safeguarded for security reasons. During the data processing process, copies of the participants' raw data were saved on a separate hard drive. When it comes to data preparation, coding is unavoidable. Coding is an analytical approach that entails categorizing or organizing data to facilitate analysis. Because of lack of time,

we have used MS Excel to prepare our survey data. From this, we prepared our solution.

3.6 Analysis Plan

In quantitative data analysis, the first step is to organize the raw data in a form that makes it easier to comprehend. The mode can be utilized with nominal, ordinal, interval, and ratio data. As a result, in terms of social data, it has the broadest possible applicability. The next step in the analysis is to seek patterns and relationships in the data after creating a description of the data profile. Tables, bar charts, histograms, scatter plots, line graphs, pie charts, and other visualizations can be used depending on the type of data found. This would give a genuine social media rumor an overall impression. The final evaluation of how well the complete proposal is prepared is a fantastic analysis plan. After collecting data, a researcher must do a thorough analysis to make an informed study decision. The research team can start the analysis by changing or integrating the collected data in a variety of methods, such as mapping out the issues and establishing linkages. This enables a researcher to immediately spot data trends that may aid in analysis. For data analysis, we employed the exploratory data analysis approach, which allows us to examine, plot, and alter data without making any assumptions while also allowing us to understand the data through graphical representation.

3.7 Data Presentation Plan

This stage has shown the survey findings as well as the data that was analyzed. Bar charts, pie charts, and other visual techniques were used to depict the various replies provided by participants. The data that was analyzed was structured, with summaries of each survey's responses and a brief analysis based on the

individual results. This presentation has done a good job of presenting the findings of the study.

3.8 Preferred Tools

The researcher evaluated the use of the analytic program "SPSS" because our study is quantitative, but we judged that it was unneeded due to the short time frame and a small number of participants, therefore we opted not to use it. Instead, we completed this analysis and obtained our intended result using a pen, paper, laptop, audio recorder, and Microsoft Office.

3.9 Follow Ethical Factors Analysis

We gathered data from participants by conducting a survey, and all participants were given a consent form that detailed the research's purpose and data collection processes. Participants will discuss their interests and opinions. Anyone who fills out this survey form has the option to not participate. We made certain that all participants remained anonymous and that the information they provided remained confidential. All the questions were created to be clear and straightforward for the participants. We kept all this data secure, and only the researcher gets access to it for study purposes.

4. RESULT

Each analytical result of a certain case and issue, as well as the viewpoint of adult social media users, is exhibited and analyzed based on the consequence in this research paper. For better understanding, the outcome and interpretation we used the graphical representation comprised pie charts, bar charts, and tables. These graphs show the motives for spreading unwanted misinformation, believing misinformation, and stopping misinformation propagation on social media.

Some reasons for the spreading of unwanted misinformation via social media have been discovered by our survey. The information was provided by the participants based on their diverse experiences. Figure 1 highlights the causes for spreading misinformation.

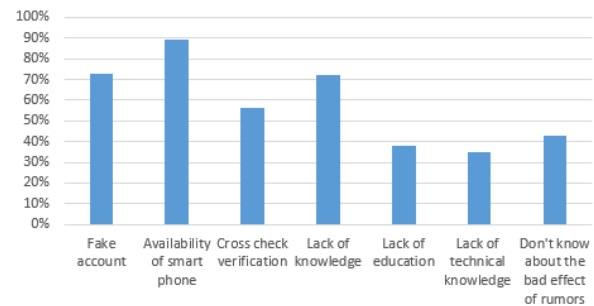


Figure 1: Reasons for spreading misinformation.

Spreading misinformation through an internet news site is a responsibility:

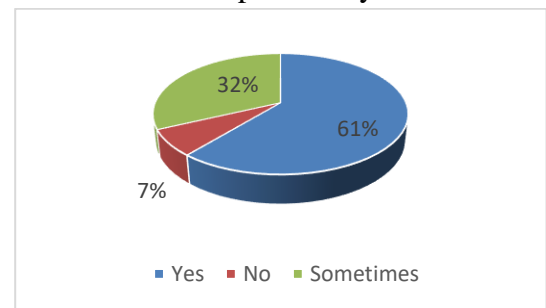


Figure 2: pie chart of spreading misinformation through the online newspaper.

Figure 2 shows that most of the participants believe that online news spreads misinformation. The previous idea with the photo tempering check procedure.

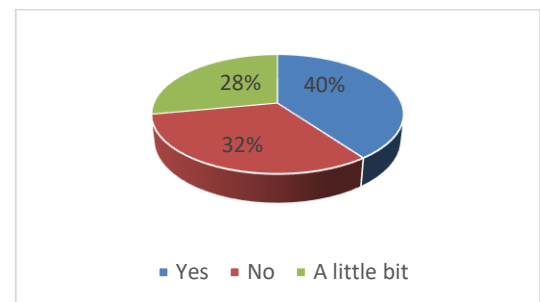


Figure 3: Pie chart of photo tampering verification procedure.

Figure 3 shows that most of the participants had no previous experience or basic understanding of the photo tempering verification procedure. Social media influencers have the following responsibilities to encourage people to believe misinformation:

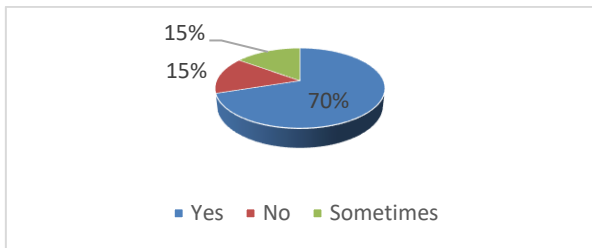


Figure 4: Pie chart of the participant's thoughts on misinformation spreading via influencers' social media postings

According to figure 4, we see that most users feel that social media influencers' posts and other information persuade the general public to believe misinformation. Possibility of believing rumors in order to obtain funds.

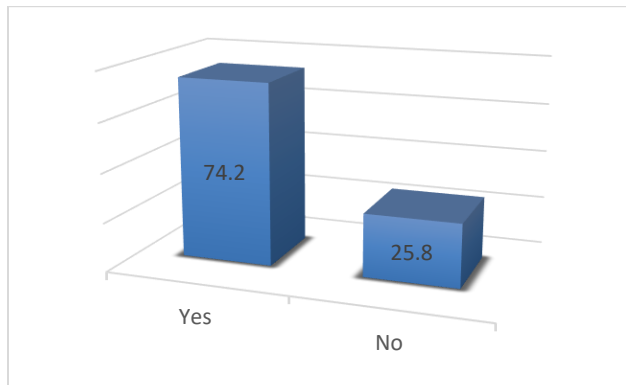


Figure 5. the participant's opinion of the survey

Figure 5 shows that all of the participants think that a certain population or cycle group believes the unwanted misinformation in order to profit financially. Because they are thinking spamming is one of the best online income sources in the present world.

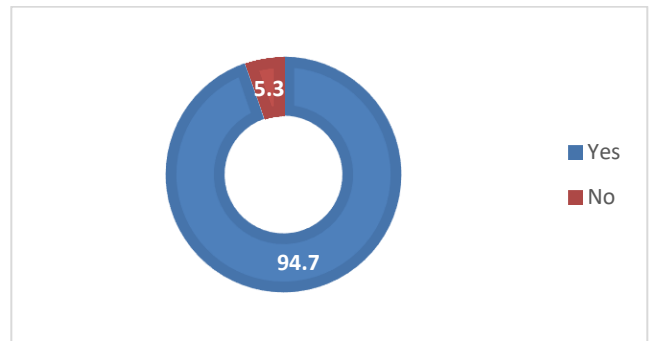


Figure 6. the participant's thoughts on whether it is possible to believe the unwanted misinformation spread by viral topics.

This figure shows that all the participants believe that a lack of sufficient information on any viral issue might lead to wrong discussions or wrong analysis. After a certain time, that's why it will be a minor issue that has the potential to become a widespread rumor. At those times it will be very difficult to find out the viral issues.

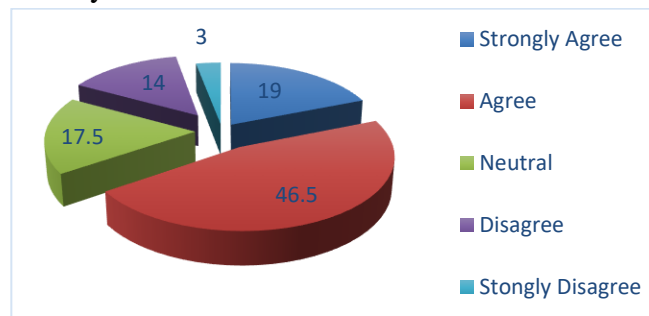


Figure 7: This survey is the participant's thoughts on the new account verification process.

This figure shows that most participants believe It is possible to prevent the spread of preventing by taking strong action by verifying the information provided in the process of signing up through social media.

5. DISCUSSION & FUTURE WORK

The impact of unwanted misinformation on social media not only affects the health of online social media networks but also decreases the quality of information accessed by its users. In recent years there was so much misinformation

spreading throughout our countries such as the use of human heads on Padma Bridge, sudden salt price hike, baby kidnaper, killing coronavirus affected patients, religion-related misinformation and so many purposes using social media like Facebook, TikTok, IMO, WhatsApp that has been affecting countries socio-political environment. A few years ago, in 2019, more than 8 people have been killed in vigilante lynchings in Bangladesh sparked by misinformation on social media of children being kidnaped and sacrificed as offerings for the construction of a Padma-Bridge. On 20th July 2019, Badda police have detained a woman named Ria Khatun for allegedly screaming 'child lifting' rumors before killing Taslima Begum Renu in the capital. Taslima Begum Renu went to Badda Government Primary School on the morning of July 20 to take information about admission. The local people brutally beat her suspected as a kidnapper. Police rescued Renu and took her to Dhaka Medical Hospital, then she died under treatment. We all know that COVID-19 broke at the end of 2019 and quickly became one of the most popular news in the whole world as well as in our country Bangladesh. More and more people were affected by this virus and many people were dead. It is difficult to prevent and control, meanwhile, some people and some fake news portals started to spread so much misinformation, hoaxes regarding the etiology, outcomes, prevention and, cure of the disease.

According to our survey, most people assume that online news portals promote unwanted misinformation very much. These online news sites want to gain more views, for this reason, they frequently publish news with misleading, confusing, and double-meaning headlines. People are attracted to the news and want to read this news for this double-meaning headline, which leads to people being misguided. As well as there are many fake news portals that post false

information because they want to humiliate a specific organization or company.

The availability of smartphones, lack of proper knowledge, fake or anonymous accounts are the main reason for spreading misinformation, according to our survey. Among those the lack of proper knowledge is the main reason for spreading misinformation because people don't have the basic knowledge that how they can identify this news is fake or real. That's why people easily believe those rumors. In our country, most people don't have a basic understanding of photo alternation and news crosschecking.

According to our survey, most of the participants believe that viral topics and social media personalities can spread misinformation rapidly. These social media personalities have a massive number of followers who blindly believe in their influencers. Sometimes these social media personalities share fake information on social media and their followers blindly believe this news, and as result, they also share this fake information. According to this chain sharing system, any fake news can spread rapidly within a few minutes or hours.

Fake news can be rapidly spread by massive users on social media, which leads us to serious effects in a very short period. For this reason, nowadays early detection of fake information becomes an important issue in our country. There is no method for stopping false information in social media and online, but we can control it by using some methods. Besides, there are so many image-based detection tools online and by using these tools we can easily find out which image is fake and which image is real. **FotoForensics**, **Wolfram Alpha** are some popular websites for image-based detection tools. We can easily determine whether our target image has been

modified by analyzing the distribution image. *Politifact*, *Snopes*, *Factcheck*, *TwiterTrails*, *Hoax-Slayer*, *StopFake* are some popular text-based detection tools. These sites can check the facts of questionable claims on social media and any reader or user can get the real information of any news. So, the users can identify this news are real or fake. If it is fake news, then they can take proper steps against this news portal. There are also many online websites where we can find out that is any website are real or fake, also can find the whole information about the target website such as who is the owner of this website, the full address of this website's owner, phone number and so many things.

The government should take some proper steps to avoid rumors such as expanding proper education, computer using skill for all people, technical skill and information, raising awareness of the negative effects of spreading unwanted misinformation, also should producing many short films or advertisements regarding the effect of misinformation.

6. CONCLUSION

Social media plays a very important role in our daily life, and day by day the number of users of social media increasing with a massive number. Social media emphasize communication community-based input, interaction, content, and

news sharing throughout the whole world. For every people social media is an easy way to share news, distributing content and information. Social media is useful to us also it has some disadvantages of spreading unwanted misinformation and fake information if we cannot use it properly. To prevent unwanted misinformation, awareness should be increased in using social media sites carefully, knowing the proper update use of information and technology, making all of the people aware of the adverse effect of unwanted misinformation. The government should fortify the cybercrime unit, and the cybercrime units should arrange seminars against misinformation as well as should identify all the fake accounts in social media and other fake online news portals. Then they should take the proper step against them.

Face-to-face interviews during our data collection have been disrupted due to COVID-19, but we took our survey via a google form. Our proposed model is based on data collection of over 100 people through the google form. After collecting the data, we analyzed these data and according to these surveys, we discussed the whole observation of rumor spreading and the disadvantages of unwanted misinformation. We strongly believe that this paper would be an important guideline for social media users as well as the local people

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