

# The Exploration of Privacy Concerns for Fake Page in Social Media and Its Effects to Community

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**Abstract—** In the social network era, user generated content paradigm has been emerging. Various organization both public and private have been embracing social media to gain more profit. Users' post implies the user preference. Data is analyzed and synthesized to find out for the meaning information. However, there are some considering issues rising from user generated contents over the social network. For example, the fake page sharing scenario, the personal privacy problem is discussing. We, therefore, conducted an exploration to investigate on the privacy concerns in case of fake page sharing over social network to better understand its effects on both individual and community. The survey questionnaires are distributed to students from Chiang Mai University. On the basis of the results obtained from the questionnaire, it implied that the rumors which were shared by fake pages/sites over social network affect both individual and society obviously while the respondents respect of learning to avoid rumors by using a number of schema which were suggested by the report.

**Keywords-** Privacy; Privacy Exploration; Risk; Fake Page; Social Media; Social Network; Communication; Community Effects; Rumor over Internet; Rumor over Social Network.

## I. INTRODUCTION

When the social network is emerging, social network contributes positive effects to society, i.e. spread the messages across various people distantly, however, they also serve negative results as well such as cyberbullying. [1]

Since social network encourages user to interact, generate and share contents, interests, thoughts to others. People should aware about risk and privacy when using social network to protect their sensitive information from unauthorized users. [2] The best practice and measurement of security and risk were needed in this period of digital environment. [3]

There are various studies investigated about the risks rising from social network usage. Wang et al studied two main factors influence social media users' behaviors which were trust and risk. This research contributed the better understand of the effects of these factors. [4] Moreover, Feng et al investigated the privacy consideration among social network

users in the age of teen to clarify the relationship between the privacy concern and privacy protection. [5]

Rumor expansion is one of examples which lead the combat over social media. Zhao et al conducted a survey to study the formation of user's behavior who used social media in the aspect of rumor combating using the concepts of planned behavior and the norm activation model. [6] Besides, Luo studied about how to maximize the rumor spreading over social network and specify the source of rumor. [7]

This study aims to explore the considering of privacy issue for rumor sharing over the social network by fake pages/sites. Moreover, their effects to people and community are investigated to better understand the problems and find out the suitable solutions.

The rest topics in this paper are follows. Methods and materials are detailed in section 2. Section 3 presents the results of research and their interpretation. Section 4 summarizes the conclusions and suggestions.

## II. METHODS AND MATERIALS

This section discusses the research methods and materials as follows.

### A. Time and Place of the Research

The survey of this research was conducted in Chiang Mai University, Chiang Mai, Thailand during January 2016 to April 2016.

### B. Population and Sample Selection

The research was set on a sample of 156 students who enrolled in the academic year 2015/2016 at Chiang Mai University. Over two-third of respondents are female at 78.21% and 21.79% of them are male as presented by TABLE I.

TABLE I. RESPONDENTS' GENDER INFORMATION

| Gender                | Male   | Female |
|-----------------------|--------|--------|
| Number of Respondents | 34     | 122    |
| Percentage            | 21.79% | 78.21% |

The TABLE II shows the number of respondents on every ranges of age. Majority of respondents are 18 to 22 years old at around 80%. Both under 18 years old and 23-30 years old have equal percentage at approximately 10%. Besides, the rest of the respondents are over 30 years old at nearly 2%.

TABLE II. RESPONDENT'S AGE INFORMATION

| Age                   | Under 18 years old | 18-22 years old | 23-30 years old | Over 30 years old |
|-----------------------|--------------------|-----------------|-----------------|-------------------|
| Number of Respondents | 19                 | 120             | 14              | 3                 |
| Percentage            | 12.18%             | 76.92%          | 8.97%           | 1.92%             |

### C. Data Collection Tools

The questionnaire was implemented and distributed by using Google Form services. There are two sections in the questionnaire including respondents' information and respondents' view of point toward fake pages/sites. The details of contents are described as following TABLE III and IV, respectively.

TABLE III. SURVEY QUESTIONS PART 1

| Respondents' Information |  |
|--------------------------|--|
| 1. Gender                | 1.1 Male<br>1.2 Female   |
| 2. Age                   | 2.1 Younger than 18 years old<br>2.2 28-22 years old<br>2.3 23-30 years old<br>2.4 Over 30 years old |

TABLE IV. SURVEY QUESTIONS PART 2

| Respondent's view of point toward fake page/site.  |  |
|--|--|
| 3. Have you ever read news/content from fake news sites or fake pages?   | 3.1 Ever.<br>3.2 Never.  |
| 4. How can you keep away from aspersion and rumor?   | 4.1 Read news from notable news agency.<br>4.2 Listen to the reliable radio station or watch the television.<br>4.3 Do not believe all you read on. Search for the reliable source first.<br>4.4 Other   |
| 5. How do you classify which one is fake page/news site?<br><i>Note: you can select more than one item.</i>                | 5.1 There are too many followers while this account was activated recently.<br>5.2 Verified account by Facebook (Blue tick mark).<br>5.3 The URL is not official.<br>5.4 Consider the category under the page title.<br>5.5 Other (Please specify) |
| 6. In case of edited photos or video which look like some notable or celebrity were published by fake pages/news sites, in | 6.1 Alluded person were suspended or terminated employment.<br>6.2 Alluded person were gossiped and people have the negative attitude towards them.<br>6.3 Defamed and violated of privacy.<br>6.4 Mentally impacted to the alluded person         |

| Respondent's view of point toward fake page/site.                                  |  |
|--|--|
| your opinion how they affect to the alluded person?                                | and their associates.<br>6.5 Other   |
| 7. How fake pages/news sites affect to society?                                    | 7.1 Well-known news agency which is imitated by fake news site/page may be discredited.<br>7.2 The rumors were shared indefinitely in the social network without news filter causes misunderstanding among people in society.<br>7.3 Lead to rift and brawl between people who believe and who do not believe in the rumors.<br>7.4 Other (Please specify) |
| 8. In your opinion, what is the major cause of the fake page?                      | 8.1 Nowadays, many people are social media addict. People are often reading news which are shared over the social network. Therefore, many criminals can make money by creating fake page.<br>8.2 People do not realize on the effects of fake page.<br>8.3 Weak rule of law and lack of good governance a major threat.<br>8.4 Other (Please specify)     |
| 9. How to cope with the fake page?   | 9.1 Block that page.<br>9.2 Report as spam.<br>9.3 Unsubscribe.<br>9.4 Other (Please specify)  |
| 10. What is the main consequence which is affected by fake page to you?            | 10.1 Changing in attitude toward the people in the news.<br>10.2 Becomes more pessimistic when read the bad news.<br>10.3 People may misunderstand about you regarding the rumors which are shared over the social network.  |
| 11. Personally, person who shares the rumor over social network is offense or not? | 11.1 No, if he does not realize that is the fake news.<br>11.2 Yes, in case the privacy is consider.<br>11.3 No, because there are numerous number of sharing.<br>11.4 Yes, the person who post and share the rumor over social network are offense and punishable by law.   |

### III. THE RESULTS OF THE RESEARCH, THEIR INTERPRETATION AND DISCUSSION

The research results reflect the students' opinion on how fake pages/sites affects to individuals' privacy and society in order to find out the proper solutions to tackle the issues. In this research, there are 134 participants who have ever read contents from fake pages/sites (roughly 86%) and the rest of them (around 14%) have never read as demonstrated on TABLE V.

TABLE V. NUMBER OF RESPONDENTS EVER READ FAKE PAGES/SITES

| Have ever read fake pages/sites | Ever   | Never  |
|---------------------------------|--------|--------|
| Number of Respondents           | 134    | 22     |
| Percentage                      | 85.90% | 14.10% |

Figure 1 show the solutions to keep away from rumors which were shared by fake pages/sites. Out of 156 participants, 73.08% of them suggested that people should not believe all what they read on. They should search for the reliable sources first. While 13.46% responded to read news from the notable news agency. Besides, 9.62% of them favor with listen to the reliable radio station or watch the television.

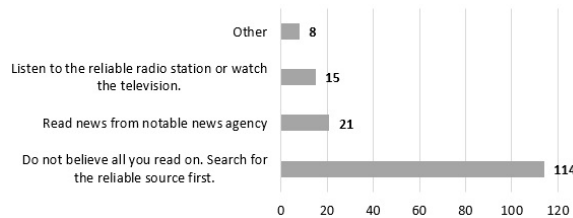


Figure 1. How to keep away from aspersion and rumor.

The methods to classify fake pages/sites are demonstrated in Figure 2. The participants can recommend more than one method. Out of 243 responses, at least a third of respondents (30.86 %) suggest that examination for the formality of the URL (Uniform Resource Identifier) name is the common method to classify the fake pages/sites. Moreover, around 25.93% notice the blue tick mark to distinguish the authorized pages which were verified account by Facebook. As well as 22.63% of students, they determine the fake pages/sites by reviewing whether there are too many followers while this account was activated recently or not.

The difference among notice the URL, blue tick mark, and number of followers was quite small. Although there are only 35 participants consider the category under the page title. These were counted 15% of the whole responses, approximately.

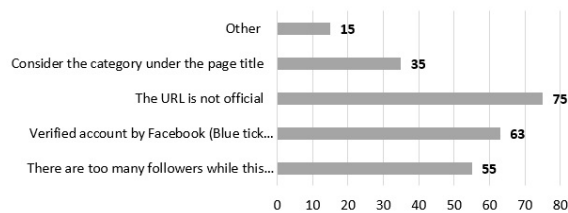


Figure 2. The methods to classify the fake pages/sites.

Figure 3 indicates how fake pages/sites affect to individual in the scenario of edited video or photos were shared over the network by them.

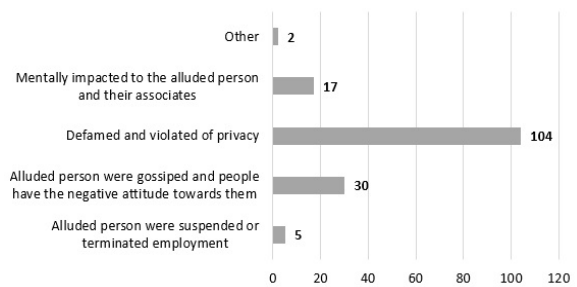


Figure 3. How faking edited photos/video affect to the alluded person.

Regarding Figure 3, by at least two-third of the participants (104 feedbacks) pointed out that people were defamed and violated of privacy by faking edited photos/video which were published by fake pages/sites. There are 30 students responded that the edited media lead to the gossiped and negative attitude towards the alluded person which counted almost 20% of respondents. The mental impacts which caused by faking edited photos/video is counted at around ten percent (17 responses). There are only three percent of participants (5 people) stated that faking edited photos/video result alluded people were suspended or terminated employment.

Beside the how fake pages/sites have effects to individual, how they affect to society was studies also as depicted by Figure 4.

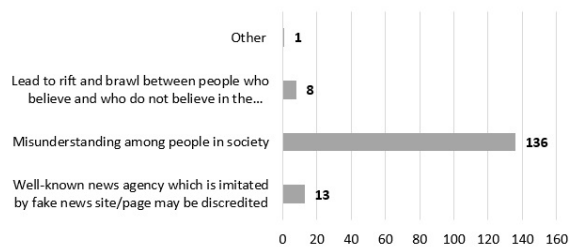


Figure 4. The effects of fake pages/sites to society.

Regarding to Figure 4 which shows the results of the survey speak about the effects of fake pages/sites to society, we shall observe that out of 158 responses, nearly 90 percent of them (136 people) believed that the rumors were shared indefinitely in the social network without news filter causes misunderstanding among people in society. And aside from the fact that the respondents considered that well-known news agency which is imitated by fake news site/page may be discredited (around 8%), the research results obtained point that 5% of respondents affirmed the fake pages/sites lead to rift and brawl between people who believe and who do not believe in the rumors

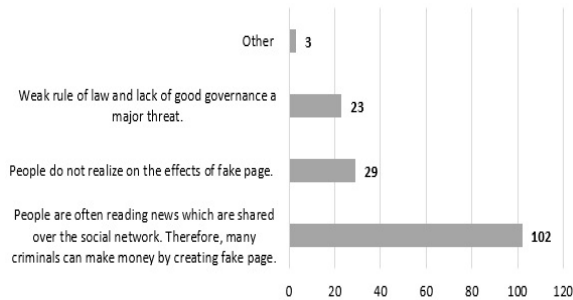


Figure 5. Major causes of the fake pages/sites

The data obtained by means of the exploration reveal the major cause of the fake page which is illustrated on Figure 5. 102 people (65%) mentioned that nowadays, many people are social media addict. People are often reading news which are shared over the social network. Therefore, many criminals can make money by creating fake page. In addition, there are small difference between the opinion on the people do not realize on the effects of fake page (29 people) and weak rule of law and lack of good governance a major threat (23 people) which were 18 % and 15%, respectively.

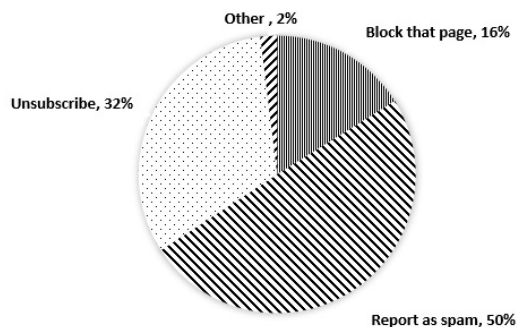


Figure 6. The way to cope with the fake pages/sites.

The research results report the way to cope with the fake page is displayed by Figure 6. Half of the responses reported the suspected page as the spam. While 32% of them unsubscribed that pages and 16 % block the page permanently.

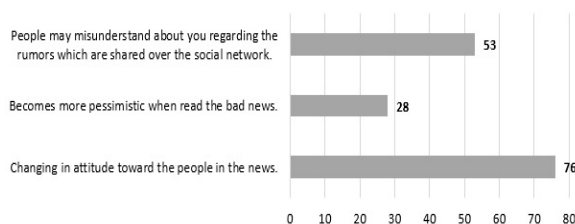


Figure 7. Effects on individual.

The result of the research shown in Figure 7 present the main consequence which is affected by fake page to individual. The fifty-fifty of participants changed in attitude toward the people in the news. One-third of them (33%) presumes that people may misunderstand about them regarding the rumors which are shared over the social network. Partly of them (18%) becomes more pessimistic when they read the bad news.

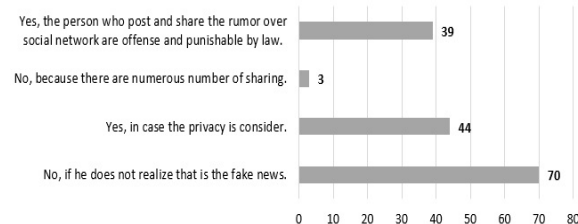


Figure 8. The opinion toward offense of sharing rumor over social network.

Figure 8 exhibits the opinion toward offense of sharing rumor over social network. The majority of participants (45%) perceived that person who shares the rumor over social network is not offense if he does not realize that is the fake news while 1% of them understand that it is not offense because there are numerous number of sharing. However, the difference between two group of people who realize that person who shares the rumor over social network is offense was small, 28% believe it is offense in case the privacy is consider and 25% conceived that the person who post and share the rumor over social network are offense and punishable by law.

#### IV. CONCLUSIONS AND SUGGESTIONS

The survey results reveal the effects of rumors which were shared over the social networks by fake pages/sites in the aspect of privacy. We reviewed the effects of both individual and society. Based on the results obtained from the survey, we can conclude that most of respondents have ever read fake pages/sites. However, the research results suggested that the best way to keep away from aspersion and rumor is to find the reliable reference before believe what they read from the internet and URL inspection is the most effective method to distinguish the fake from the official pages/sites.

Besides, people perceived the effects of fake pages/sites which affects to both individual and society. On the aspect of individual effect, the finding confirm that the majority of participants considered that the people were defamed and violated of privacy by faking edited photos/video which were published by fake pages/sites. However, the major effect to society by the fake pages/sites is the incident of misunderstand among people in society when the rumors were spread out over the social network.

In addition, the main reason why the fake pages/sites emerged is due to the social network addict. People change their way to read news. Many of them often read news which were shared over the network. Then, the criminals can make a

lot of money from advertising by creating fake page. Despite, the report proposes the method to cope with the fake page is reporting as spam.

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