

A Novel Study to Determine Fake News Quotient: Perception Based Study among LIS Students

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Abstract

Fake news can be an image, a video or an imitative news article often designed to misguide masses through wrong information. Fake news identification through normal observation is not an easy task. It needs thorough observation of facts and the process itself requires some factual steps. Public discussion forums are always empowering citizens by giving some identification properties which are often associated with fake news and also telling the follow up steps when they find some doubtful news items. The current study is an evaluative process to measure the ability of library and information science (LIS) students to identify fake news. Nine properties were identified and clubbed as Questions on Fake news Identification (QFI), based student's awareness level to those points, a resultant QFI quotient was measured out through a systematically designed process for the study. Similarly, eight activities were noted out and clubbed as Questions on Fake news Tackling Activities (QFTA), a QFTA quotient was measured out following the similar process of QFI quotient. The average QFI quotient and QFTA quotient of LIS students were 0.67 and 0.73 respectively. A significant correlation of 0.570 between QFI quotient and QFTA quotient helped to conclude that LIS students have a strong ability to identify and stop the spreading of fake news.

Keywords: Fake News, Social Media, Fake News Awareness

1. Introduction

Fake news, as defined by Cambridge dictionary (Cambridge Advanced Learner's Dictionary & Thesaurus, 2018) are false stories that appear to be news, spread on the internet or using other media, usually created to influence political views or as a joke. The matter of fake news is now so often discussed that the term "fake news" has seen a rise 365% usage since 2016 and therefore was coined as the word of the year-2017 by Collins dictionary (Collins dictionary, 2017). Fake news items can be fake edited image or video file, textual messages in

instant messaging services or look-a-like news articles published in dubious websites. Fake news are often circulated in social media platforms and instant messaging services because of their reach to individual user. Earlier TV, radio and print media were only source of news for the people. But with the rise of internet usage and mobile devices, it has created various platforms of communication in the form of social media, blogs, websites, instant messaging services etc. by which the reach of media have gone to individual personnel level. Even though the technology has grown rapidly, but user's digital literacy level hasn't increased with the needed proficiency because of which these communication platforms are now a days being abused by people with criminal mind to run biased



propaganda in the form of fake news. The issue is so abused now that various claims have been made about the use of fake news in the elections of democratic countries (Gunther, Beck, & Nisbet, 2018). Moreover, it has been often heard about incidents of mob lynching happening after being affected by fake news items. Awareness level to fake news is a serious matter of concern as it is simply an evil, bad for the society as well as for the democracy.

The reason for the rise of fake news can be many. Mostly fake news is driven by monetary and political motives. With the rise of blogging culture, fake news items are used as “click baits” by bloggers to drive out more traffic towards their blogs to rise their ad revenues. They are also created to deliberately motivate masses to drive out some common causes by ill agencies. Carson (2018) have stated that “Governments and powerful individuals have used information as a weapon for millennia, to boost their support and quash dissidence.” An article in the Guardian news paper terms it as an unethical journalism practice (Sayej, 2018) claiming to be present from ages in journalism. Melissa Zimdars (Zimdars, 2018), media professor of Merrimack College have pointed out following four categories of fake news-

- ❖ CATEGORY 1: Fake, false, or regularly misleading websites that are shared on Facebook and social media. Some of these websites may rely on “outrage” by using distorted headlines and decontextualized or dubious information in order to generate likes, shares, and profits.
- ❖ CATEGORY 2: Websites that may circulate misleading and/or potentially unreliable information

- ❖ CATEGORY 3: Websites which sometimes use clickbait headlines and social media descriptions
- ❖ CATEGORY 4: Satire/comedy sites, which can offer important critical commentary on politics and society, but have the potential to be shared as actual/literal news

Seeing the adverse cause and effect of fake news, International Federation of Library Association (IFLA) have released a public statement (IFLA, 2018) urging libraries to empower their users for spotting fake news. IFLA in the public statement have stated that fake news effects the social and economic decision making process needed for individual progress and debars an user from his/her right to access of accurate information. Therefore IFLA have urged libraries to show some ethical commitment towards this cause and empower the citizens through proper information literacy tools so that they can “evaluate critically the credible information sources”. IFLA have also developed an useful infographic to empower citizens to easily identify fake news.

2. Fake news: its identification and tackling

Fake news are intentionally designed to divert the masses from the truth. In this process they come up in various forms of images, articles, messages or videos which they spread across platforms. The reason of wild spread of fake news is because they seem to be very true at first impression and are very tough to be determined with a single observation. Photoshop, video editing tools are often used to make fake images and videos. Because of this whenever they are released over social media sites, it gets immediate attention from public and gets shared. Much researches have been going on

automated detection of fake news in social media sites but there are always some useful tricks, which may help people to identify manually whether a news or an image is fake or not. Facebook have released an official declaration (Facebook, 2018) to empower its users for identifying fake news being circulated over the platform. There are online public forums too, that empowers citizens to spot fake news based on their certain properties. Here are some properties which are often discussed in various forums (IFLA, 2018; Burns, 2017; Facebook, 2018), to be associated with fake news/image/messages-

- ❖ Fake images/news often make some unrealistic claims. From our normal human understanding we can determine that such phenomenon or activity might not be possible in nature.
- ❖ Generally fake images often contain lot of editing using Photoshop or other such software. Because of such editing, fake images are often left with cropped corners or objects from other images. More over to correct the lighting conditions in the edited images, lots of filters and effects are used. Also editing reduces the image quality. By thorough observation of these kind of elements, it can be determined if an image is fake.
- ❖ For misguiding people, fake news/messages are made claiming some derogatory activities. Such messages contain only text without any source link, and are circulated in instant messaging services. Missing source link is an identity by which people can think it to be fake.
- ❖ Fake news makes biased claims for or against any individual/community/political party. Such biased claims are made to benefit or hamper the individual/community/political party.

- ❖ Fake news are made to target individuals emotionally too so that an individual immediately gets angry or sad after reading the fake news and share it with his/her followers in social networking sites.
- ❖ Poor grammatical construction of sentences is a helpful entity to identify fake news. Fake news articles are not made by professionals and they are often made in a hurry. So they contain very bad editing of texts and grammar. Moreover such articles are often given some exaggerated headlines to attract people's attention.

Self-awareness and digital literacy level of individuals is very much important while it comes to tackling the problem of fake news items. Reverse google image search is a tool that lets a user to upload an image and search similar images like the one uploaded. This tool is very much helpful to detect the original version of morphed images. Even though the process is not automatic but it still helps to determine fake edited image.

Cross checking of facts from reliable fact checking sites or with government data is an activity that really helps individuals to deal with fake data claimed in fake news. Moreover, one should always search if reliable news sources are also running the stories claimed in doubtful fake news. Cross checking of references in the news article also helps in determination of fake news stories.

3. Objectives of the study

Students ability to determine fake news is very much important for having a better ability to take informed decision. Students nowadays use much of internet resources for their study related activities. Library and information science is such a course which

gives specialized training to identify quality information resources not only for themselves but also for the entire knowledge society. Today's students are tomorrow's information professionals and in a digital information era, where fake news have grown as a monster, it is necessary that our future information professionals develop the capacity to identify and tackle fake news. Therefore, to assess the ability of students in this matter following objectives were mooted for the study,

- ❖ To understand use of social media uses pattern of the students for news related activities.
- ❖ To identify the ability of LIS students to determine what types of news items can be considered as fake in social media.
- ❖ To assess the knowledge of LIS students in tackling fake news items.

4. Methodologies

4.1 Survey

Survey method with a systematically designed questionnaire was selected to collect data on the awareness and ability of LIS students in detecting fake news. The survey was conducted among the students of Department of Library and Information Science of Gauhati University and Assam Women's University. Convenient random sampling was used to determine the respondents among the selected population.

4.2 Questionnaire

The questionnaire constructed consisted of two sections. Section 1 was designed to understand respondent's demography and their social media & electronic news usage level. Section 2 consisted of two questions, question no 6 and 7. Question no 6

consisted of questions on Questions on Fake news Identification (QFI). Under QFI, nine properties were identified from various literature which are often thought to be associated with fake news. Respondents were asked to rate their awareness level to those points in a 4-point agreement scale. Question no 7 consisted with Questions on Fake news Tackling Activities (QFTA). After consulting different literature, eight activities were listed under QFTA, which are often suggested to do when a news is thought to be fake. Respondents were asked to give awareness level against those activities in the same scale used for QFI, which they usually do whenever they stumbled upon with any kind of fake news.

4.3 Measurement of the Fake News Quotient

A marking process was thought out to rate the awareness level of the students on fake news. Agreement to statements under QFI, will give each respondent one mark, with a maximum total of 9 mark for the 9 statements. Similarly, agreement to statements on QFTA, will give respondents one mark, with maximum of 8 mark for total 8 statements. Now the obtained mark under QFI was divided by 9 and the obtained quotient was termed as QFI quotient for the LIS students. Similarly, QFTA quotient was also obtained for the students. (Strongly agree and Agree was considered as positive agreement and one mark was assigned for both)

$$\text{Formula for QFI quotient} = \frac{\text{Obtained mark for QFI category statements}}{9}$$

$$\text{Formula for QFTA quotient} = \frac{\text{Obtained mark for QFTA category statements}}{8}$$

5. Scope and limitation of the study

The study tries to evaluate library and information science student's ability to identify fake news circulated over social media sites based on some manual parameters. The parameters were identified from different literature which discusses the association of those characteristics with any kind of fake image or news. Survey method was adopted for the study based on a questionnaire. The participants of the survey are limited to the LIS students of Gauhati University and Assam Women's University, Jorhat.

6. Data Analysis and Interpretation

6.1. Findings against objective 1

The selected population for the study consisted of Library and information science student from two universities of Assam. All total of 87 students participated in the survey. Responses were collected in an online questionnaire which was distributed among the students in WhatsApp and Gmail. Out of total 87 respondents 36 (41.38%) were female and 51 (58.62%) were male. 79% of total respondents fell in the age group of 21-25 years, followed by the age group of 26-30 years with 16% respondents. There was no respondent below the age of 20 years.

Out of total respondents, 87.35% uses social media as a current awareness tool to update themselves about the current happenings in the world, with 77.01% respondents accessing it daily. Facebook, WhatsApp and YouTube are the top 3 sites being popular among the LIS students.

6.2 Findings against objective 2

The process of measuring the ability of LIS students to identify fake news items in social media sites is

already mentioned in the methodology part. The average QFI quotient obtained for the surveyed population of LIS student is 0.67. The range of LIS students in different QFI quotient range is shown in table 4. If we take 50% of total QFI quotient as an indicator of good QFI quotient, then it is observed that 75.86% students possess this minimum quotient level. Again this student's quantity 91.95% when the quotient level is 0.4.

6.3 Findings against objective 3

The average QFTA quotient of LIS students is 0.73 among the surveyed population. 35.63% of students had QFTA quotient equal to 1. The range of LIS students in different QFTA quotient range is shown in data. If we take 50% of total QFTA quotient as an indicator of good QFTA quotient, then it is observed that 79.31% students possess this minimum quotient level.

6.4 Correlation between QFI quotient and QFTA quotient of the students

The study tries to estimate the awareness level of LIS students in a quantitative measurement scale. QFI quotient reflects LIS student's ability to identify fake news and QFTA quotient tells about the activeness of LIS students to tackle the spread of fake news. A good correlation between these measures will eventually reflect the actual ability of LIS students while it comes to the question of recognizing and stopping the spread of fake news. Data also represents the findings from Pearson correlations test for two-tailed. The obtained correlation value of 0.570 is found to be significant at 0.01 significance level. Even though not a very high co-relation, it still reflects the better ability of LIS students in identification and tackle of fake news over social media.

7. Conclusion

The big monster of fake news has become a tool for evil powers to spread the message of hate in the society. In an era of connected world of social media, the digital literacy level of users is very much important to fight with fake news. The study takes an evaluative approach to determine the ability of LIS students to identify fake news by a manual process. LIS students from two universities Gauhati University and Assam Women's University participated in the study. The respondents were found to be avid users of social media with 87% of respondents using it actively as a current awareness tool. Facebook, WhatsApp and YouTube are the top three most popular medias among the respondents. The study takes a direct approach of quantification to measure the awareness level for identification of fake news by the students based on some well discussed parameters. The resultants of the measured values were termed as QFI quotient and QFTA quotient representing the ability to spot fake news and ability to take the follow up process to tackle fake news respectively. On an average the study found a QFI quotient and QFTA quotient of 0.67 and 0.73 respectively. A strong percentage of students have QFI quotient and QFTA quotient above 0.50, which only reflects their better understanding towards fake news. The significance correlation of 0.570 proves the better ability of LIS students to deal with identification and spread of fake news. This better ability might be due to better digital literacy level of LIS students as the LIS course curricula itself gives much emphasis on enhancement of digital literacy level of students.

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Note:

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