

# *Analysis of Misleading and Authenticity of News Headlines*

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**Abstract:** The era of information has brought about a new "reading era" for news communication. Regardless of the type of news report, it is crucial to ensure the truthfulness of the news. The authenticity of news is the foundation for its existence and development. However, due to the entertainment-oriented nature of online media, some companies that profit from internet traffic take advantage of the general phenomenon of most users' lack of attention and irrationality on the internet platform. This phenomenon has been observed for many years and has repeatedly misled the masses, affecting their daily lives. This article analyzes the current problem using a questionnaire consisting of 14 questions. Nine of these questions are AI-generated fake news, while the remaining five are based on news headlines that caused panic in the past two years. This article focuses on the impact of inappropriate news headlines on people's confusion and daily lives. The results indicate that news about daily life significantly impacts people, regardless of their age or reading range.

**Keywords:** News title, Mislead, Internet platform, Social communication

## 1. Introduction

The arrival of the 5G era has resulted in the fast-paced advancement of internet technology, providing convenience, and presenting numerous challenges for individuals. In this era of the internet, everyone can easily access news online [1]. Exaggerated News headlines tend to be more attention-grabbing than the actual news content, thus misleading readers' thoughts, and behaviors, becoming a significant societal threat with its fast dissemination over the Web and social media and its power to shape public opinion [2]. Some problems can occur when misinformation turns into a hoax [3]. News significantly impacts our daily lives because people think news headlines contain much valuable information [4]. Fake news exposure affects people's behavioral lives or big or small decisions [5, 6].

Additionally, veracity labels about the ground truth of news headlines may reduce false beliefs and sharing behaviors [7]. A recent study showed clear evidence that reminders of fake news could enhance the accuracy of memory for and beliefs in accurate news corrections [8]. In today's world, social media platforms encourage us to consume news daily, and various news outlets compete to capture our attention. As a result, videos on TikTok are often only 5-10 seconds long, which usually only allows for a glance at news headlines. Unfortunately, people's short attention spans often prevent them from reading the full article, causing misleading or fake headlines to be ingrained in their minds. Over time, this creates a vicious cycle where attention is given to clickbait headlines rather than factual news. To analyze this phenomenon, this paper collects 224 valid questionnaires from people of all ages, tracking their annual reading volume as a variable. This paper selects news headlines from

various fields, such as food, health, epidemics, radiation, and life, both real and fictional, to analyze people's responses to different levels of news headlines. This research highlights the impact of misleading news headlines on the public.

Like earlier findings, this paper aims to differentiate between the harmful "exaggerated news headlines" produced by the masses [9]. To achieve this, this paper uses a questionnaire method. The questionnaire design will be distributed through major social platforms to reach a broad societal audience.

This questionnaire mainly sets up two variables. This paper uses this approach to estimate age and average annual reading to study whether the variables of life experience and receiving knowledge will impact the judgment of news headlines [10]. To create a questionnaire that is easy to understand and use, we have chosen to focus on the relationship between real news and AI-generated news. This paper examines how people of different ages and reading abilities interpret headlines and how their psychological responses may vary. This paper aims to understand how people process news information and how easily relatable and simple news stories influence them. This paper suggests that people rely heavily on news headlines, regardless of age or reading habits. This can lead to misinformation, especially regarding news related to everyday life.

## **2. Methods**

### **2.1. Ability to Identify News Headlines**

This paper explores the relationship between age and annual reading volume in terms of news discrimination ability. (1) The 18-40 age group possesses a particular social experience and is more willing to accept and understand new things, making them better equipped to distinguish news. Additionally, they have mastered the skills of using the internet to some extent, further enhancing their ability to differentiate between legitimate and fake news sources. (2) The 12-18 and 40+ age ranges may need more life experience and knowledge regarding online media, making it harder for them to distinguish between natural and sensational news headlines. (3) They may share news stories with their family and friends that are not entirely accurate or trustworthy. Furthermore, our research indicates that annual reading volume positively correlates with news discrimination ability. The more one reads, the more information they are exposed to, and the better equipped they are to differentiate between reliable and unreliable news sources. Overall, this paper highlights the crucial role of age and reading habits in shaping one's news discrimination ability.

### **2.2. Design Logic and Composition of the Questionnaire**

The headline accurately represents the content of the news article. The questionnaire includes 16 questions: four featuring completely virtual news headlines generated by AI, four featuring actual news headlines, and additional questions asking whether the headlines will be shared and if there will be expressions of opinion or verbal attacks in the comments section. The available options for each headline simulate people's internal responses when reading news headlines and whether they influence their daily decisions. Due to the difficulty of finding confusing or unknown news, the questionnaire includes AI-generated misleading news headlines for respondents to evaluate.

Set the attitude towards different news headlines under each headline, such as: "Will music change your appearance? Listen to your favorite music or straighten the bridge of your nose. 5 options are set. (A. "It is amazing! From today on, the headphones will be soldered to my ears" (believe). B. "It seems that I really feel this way. I feel that my nose is getting higher, and it has something to do with the music I always like" (believe and bring myself in). C. Is it true? Let me check what's going on with the information (with a skeptical attitude). D. This research is interesting (listen to it as anecdotes). E. I don't believe in such news (I don't believe it; I have a certain ability to distinguish).

Age and average annual reading are variables, and text scenarios are set for each question to analyze the discrimination ability. The degree of behavioral influence is also highly transmissive. Finally, after investigation and analysis, it was found that no matter which age group or the annual reading volume is in which range, the ability to distinguish news could be more vital. This means that exaggerated news headlines significantly impact people's choices of daily life behaviors. If this kind of phenomenon is not solved in time, it will cause significant harm to the cognition of our daily lives.

### 2.3. Data Collection

This questionnaire collected 224 questionnaires, of which 18-30-year-olds accounted for the most significant proportion of people aged 50+. All 224 questionnaires are available. Select the large-scale misleading and fictitious news headlines in China in the 21st century to compare and analyze the understanding and analysis of different news headlines of different age groups and the average annual reading.

## 3. Case Analysis

### 3.1. AI News Title Distinguished by Age

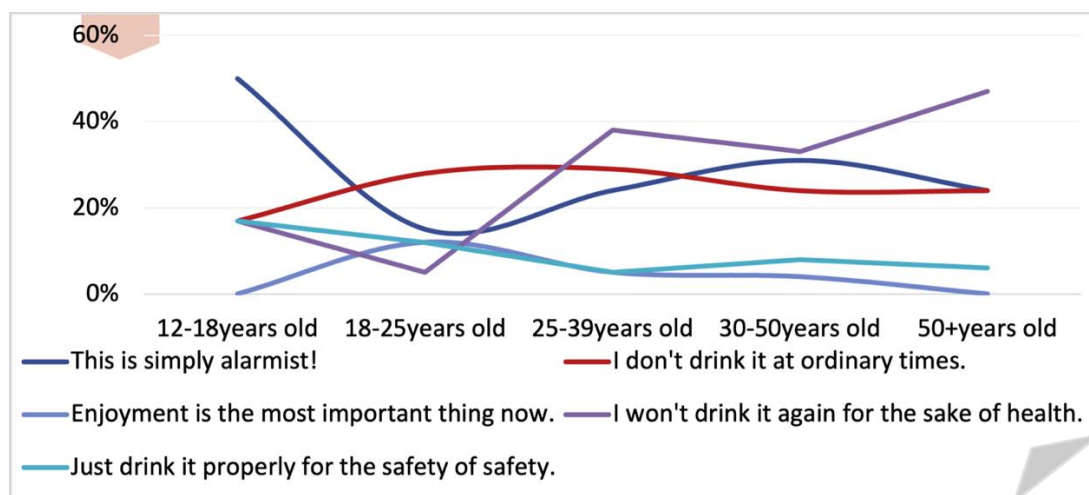


Figure 1: news headline Coca-Cola Zero Sugar can't be drunk, opinions of different age groups.

Figure 1 shows: "For health's sake, I will not drink again." On average, every age group will be affected by news headlines. It is worth noting that "Enjoyment is the most important thing now" and "for safety reasons, drink appropriately" account for the minor proportion of people who are not affected by news headlines at all or only slightly affected." For the sake of health, I will not drink it again in the future." accounts for a significant proportion of people who are affected by news headlines on daily life.

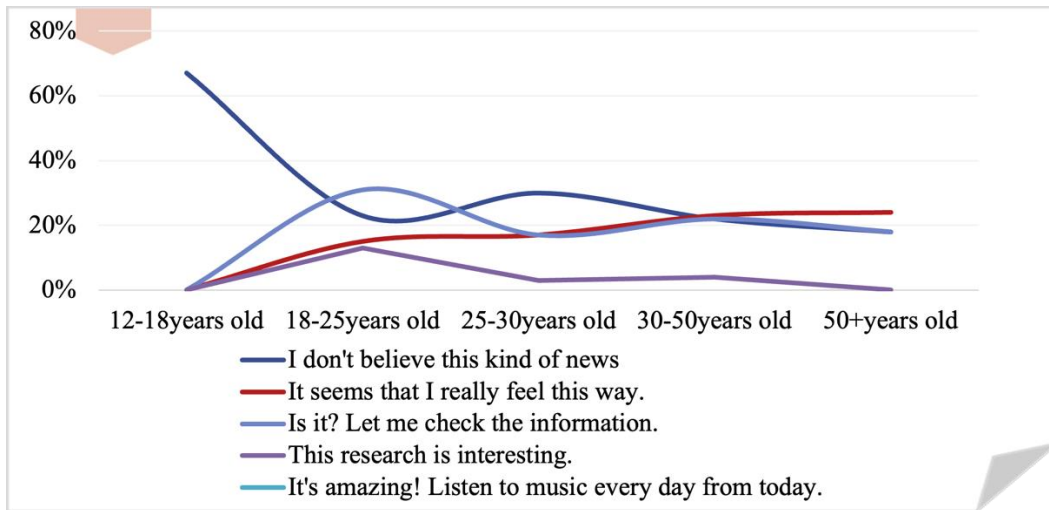


Figure 2: "Listening to your favorite music will raise the bridge of your nose", and the views of different ages this question made by AI.

Figure 2 shows that, on average, every age group will be affected by news headlines. According to "It seems that I feel this way," most individuals tend to insert themselves into the title, making it more persuasive and more straightforward to convince others when sharing. Meanwhile, "It is amazing! Listen to music every day from today" shows that news headlines can change our daily activities and behaviors." This research is interesting" has a minor proportion, which means fewer people are affected by news headlines.

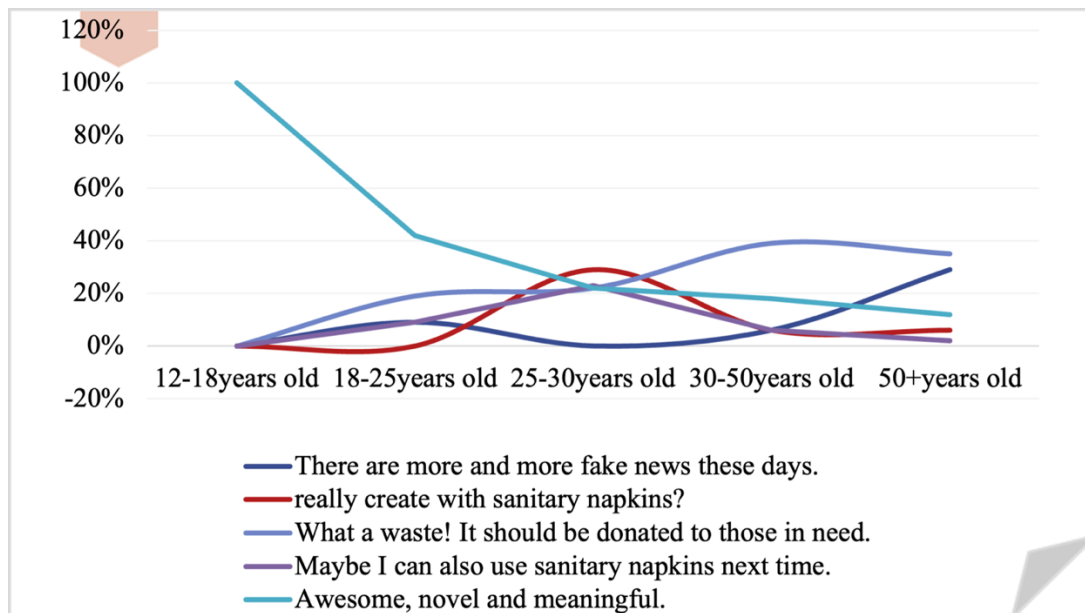


Figure 3: Women use sanitary napkins to create works of art, views of different ages.

As shown in Figure 3, such a news headline, can also cause some public imitation. In the age range of 25-30, 22% of people think such behavior is worth learning. This demonstrates that news headlines significantly influence daily life and serve as a reference point for many people who may agree with and replicate them. According to "What a waste! It should be donated to those in need." It is common for individuals to experience negative or critical emotions in response to news headlines.

### 3.2. AI News Title Distinguish by Annual Average Reading Volume

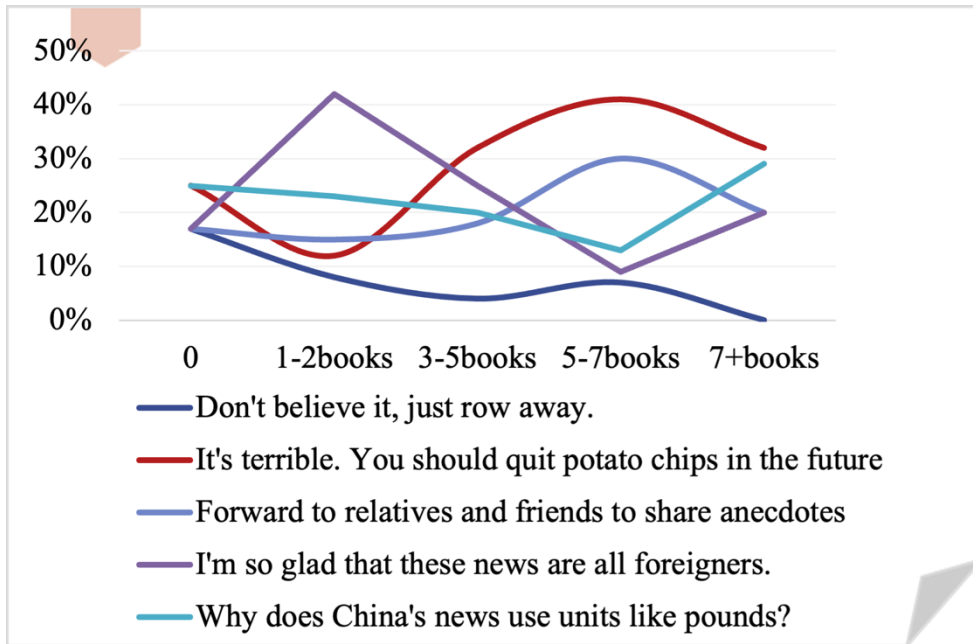


Figure 4: A man overeats potato chips and can't pass through the house.

In the question, "A man overeats potato chips and cannot pass through the house," 41% of people who read 5-7 books a year said they would quit potato chips. The results in Figure 4 illustrate the correlation between the amount of reading and the ability to detect fake news.

### 3.3. AI news Title: The Secondary Transmission of News Headlines

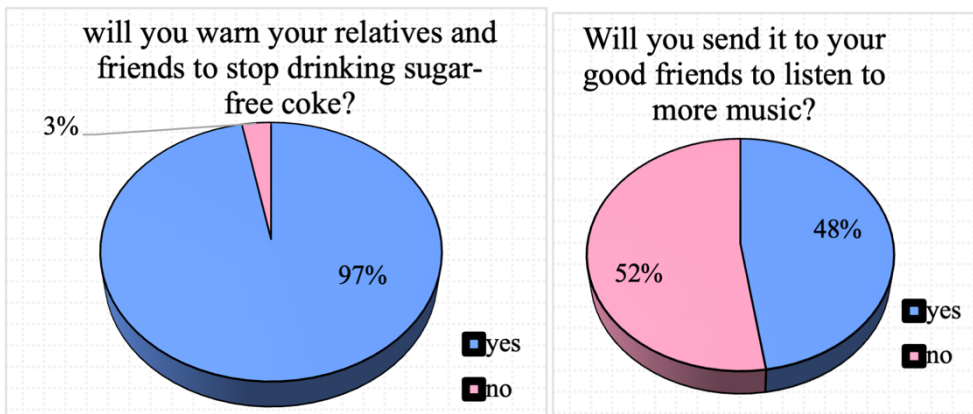


Figure 5: Coca-Cola Zero Sugar news and listening to music make the bridge of the nose more communicable.

As shown in Figure 5, After seeing exciting news headlines, most people share them with their relatives and friends, adding more communicability. Among them, people between the ages of 12-18 and 50+ are more willing to share with the people around them, which shows that such news headlines are highly communicative.

### 3.4. The People Attitude About Real News Title

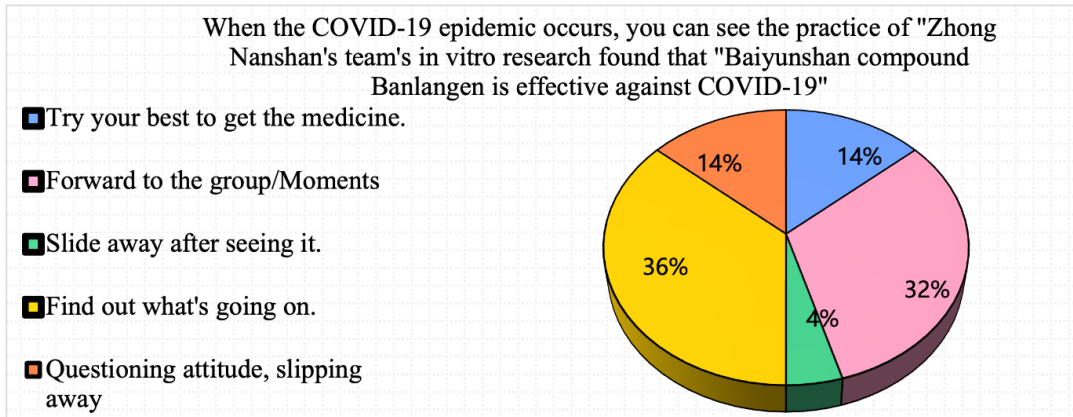


Figure 6: Banlangen can treat COVID-19 and eat iodised salt to prevent radiation.

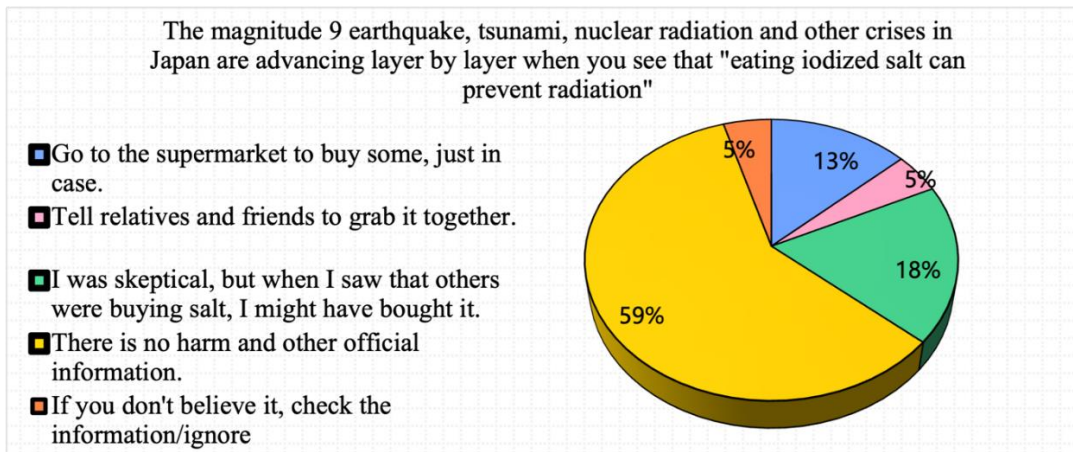


Figure 7: Banlangen can treat COVID-19 and eat iodised salt to prevent radiation.

As shown in Figure 6 and Figure7, in the misleading news headlines that have occurred, everyone will be vigilant. Most of them will choose to wait for official notices, but what remains unchanged is that they are still very communicative.

Judging from the results, whether the average reading of false news headlines varies from age to age or year, the ability to distinguish false news headlines is not strong, and most of them will be misled by false news headlines, which shows that it is easy to gain people's trust from news headlines alone. On the contrary, people are more vigilant when they see some titles that have caused misleading behavior. Some news or anecdotes about health are more likely to attract people's attention, and such titles will be more popular. Perhaps many news media make the title fascinating to get clicks, but it is straightforward to cause the understanding of the ontology or even deviate from the meaning of the news itself, and people's ability to distinguish news headlines is not well.

## 4. Conclusion

This study shows that most people need help distinguishing the authenticity of news headlines and correctly understanding news headlines. People are more inclined to believe in news that is more relevant to themselves and consistent with their cognition, even if it is invalid. Whether it is age or the average annual reading, it does not have much to do with the understanding and identification of

news headlines. However, the average annual reading volume is higher, and reading longer titles may be more patient. It was found that news about daily life significantly impacts people. No matter the age or the range of reading, news headlines cannot be well distinguished, and such headlines are highly communicative. Some groups even actively comment and criticize views contrary to their own after reading the title, which is highly detrimental to forming a good Internet environment. Some irresponsible "gimmick" titles not only mislead the audience and mislead public opinion but also deviate from the correct value orientation of the news.

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