

Grok LLM

Fake news is a big problem that affects things like elections, health, and society. For example, false stories spread during the 2016 U.S. election and the COVID-19 pandemic caused confusion and harm. Most studies and datasets about fake news focus only on whether the news is true or false. But we think that's not enough to really understand fake news.

We created a new way to label fake news by looking at more than just the facts. Our method includes: (1) if it's true or false, (2) why the person spreading it did so, (3) who or what it's about, (4) how it talks about them, (5) what it's trying to achieve, (6) how it might hurt society, and (7) what kind of harm it could cause. This helps us better understand fake news and could improve systems to spot and stop it.

Using this new method, we made the first Japanese fake news dataset. This will help us learn how fake news spreads in Japan. In the future, we want to use this approach on datasets in English and other languages to compare fake news across countries.

In short:

- We reviewed existing fake news datasets and found gaps.
- We made a new labeling system that looks at fake news from many angles.
- We built the first Japanese fake news dataset with this system.

ChatGPT LLM

Fake news has caused serious problems in society, affecting politics, the economy, and public health. For example, during the 2016 U.S. presidential election, fake or highly biased news spread widely on Twitter, potentially influencing the results. Similarly, false claims about COVID-19, such as vaccines causing infertility, created confusion and fear.

Most fake news detection efforts focus only on whether the news is true or false. However, understanding fake news requires more than just checking its factuality. We need to consider factors like the purpose behind spreading it, its societal impact, and the methods used to mislead people.

To address this, we propose a new way to analyze fake news by looking at multiple aspects, including:

1. Whether the news is true or false.
2. The intention of the person spreading it.
3. Who or what the news targets.
4. How the target is portrayed.
5. The purpose of the fake news.
6. Its potential harm to society.
7. The types of harm it can cause.

Using this approach, we created the first Japanese fake news dataset, which helps us understand how misinformation spreads in Japan. In the future, we plan to apply this method to English and other languages to compare fake news trends globally.

Our key contributions:

- We reviewed existing fake news datasets and identified their limitations.
- We developed a new annotation method that looks beyond factuality.
- We built the first Japanese fake news dataset using this method.

This research can help journalists, fact-checkers, and policymakers better understand and combat fake news.

Claude LLM

Background

- Fake news causes damage to society in areas like economics, politics, and health
- Examples: Misleading content in the 2016 US election and false COVID-19 vaccine information
- Existing research has focused mainly on detecting if news is factual or not

Main Problem

The authors believe that just labeling news as "fake" or "real" is not enough to fully understand the fake news phenomenon and its impacts.

Proposed Solution

They created a new annotation scheme that looks at fake news from multiple angles:

1. Factuality (is it true?)
2. Disseminator's intention
3. Target of the news
4. Reporting method
5. Purpose
6. Potential societal harm
7. Types of harm

Implementation

- They built the first Japanese fake news dataset using this annotation scheme
- They plan to apply this to English and other languages in the future
- This will allow for cross-cultural comparison of fake news patterns

Contributions

1. Identified issues in existing fake news datasets
2. Created a multi-dimensional annotation scheme beyond just factuality
3. Developed the first Japanese fake news dataset

Deepseek LLM

Fake news has caused serious harm in areas like the economy, politics, and health. For example, during the 2016 U.S. presidential election, false claims spread on Twitter, and biased news outlets may have influenced the election. Similarly, during the COVID-19 pandemic, misinformation about vaccines caused confusion and harm. Fake news is a growing threat to society and social media.

To address this, researchers have created tasks like fake news detection, which identifies whether news is false, and datasets like FakeNewsNet, Twitter16, and CoAID. However, these datasets mainly focus on whether the news is factual. This limits our understanding of fake news, as it doesn't consider other important aspects like the intent behind spreading it, its harmfulness, or its targets.

To better understand fake news, we propose a new annotation scheme that looks at multiple perspectives:

1. Factuality: Is the news true or false?
2. Intent: Why was the news shared?
3. Target: Who or what is the news about?
4. Method: How is the target portrayed?

5. Purpose: What is the goal of spreading the news?
6. Harm: How harmful is the news to society?
7. Types of harm: What kind of harm does it cause?

This approach helps us understand fake news more deeply, such as how its spread changes depending on whether the sharer knows it's false. It also has practical uses, like helping journalists, fact-checkers, and policymakers identify dangerous misinformation.

Using this scheme, we created the first Japanese fake news dataset. This will help us study fake news in Japan and compare it with fake news in other countries. In the future, we plan to apply this annotation method to datasets in English and other languages.

Key Contributions:

- We highlight issues with existing fake news datasets.
- We propose a new annotation scheme to analyze fake news from multiple perspectives.
- We build the first Japanese fake news dataset using this scheme.

This work aims to improve our understanding of fake news and its impact on society.

Perplexity LLM

Introduction to Fake News and Its Impact

Fake news has caused significant harm across various sectors, including the economy, politics, and health. For example, during the 2016 U.S. presidential election, many low-credibility statements were spread on Twitter, potentially influencing the outcome. The COVID-19 pandemic also saw the spread of misinformation, such as false claims about vaccines.

Current State of Fake News Detection

Previous studies have focused on detecting fake news by classifying its factuality. Datasets like FakeNewsNet and Twitter16 have been developed for this purpose. However, these datasets primarily focus on whether news is true or false, without considering other important aspects.

New Annotation Scheme for Fake News

To better understand fake news, a new annotation scheme is proposed. This scheme includes not just factuality but also:

- Intention of the disseminator
- Target of the news
- Method of reporting the target
- Purpose of the news
- Potential harm to society
- Types of harm

This approach provides a more comprehensive understanding of fake news and can aid in building more effective detection systems.

Japanese Fake News Dataset

A new Japanese fake news dataset has been constructed using this annotation scheme. This dataset will help analyze the spread of fake news in Japan and can be applied to other languages in the future for comparative analysis.

Contributions of the Study

1. Identifying issues in dataset construction
2. Proposing a novel annotation scheme
3. Constructing the first Japanese fake news dataset

Human

Fake news has generated severe issues in society, impacting politics, economics, and public health. For instance, fake or very biased news was shared extensively on Twitter during the 2016 U.S. presidential election and may have impacted results. False information regarding COVID-19, for instance, that vaccines lead to infertility, generated confusion and fear.

Most attempts at fake news detection deal with only true or false nature of the news. But the comprehension of fake news is needed beyond verifying its factuality. We must think about the intent behind disseminating it, its social effect, and the process of deceiving people.

In order to resolve this, we introduce a novel approach to examine fake news on various dimensions such as:

1. Whether or not the news is true or false.
2. The intention behind the individual who is propagating it.
3. Who or what the news is directed against.
4. How the target is being represented.
5. The motive behind the fake news.
6. The way it may harm society.
7. The various ways it may cause harm.

By adopting this method, we established the first Japanese fake news dataset, providing us with insights into how fake news is spread in Japan. We intend to extend the same approach to English and other languages in the future to analyze fake news patterns across the world.

Our main contributions:

1. We surveyed existing fake news datasets and their limitations.
2. We proposed a new annotation method that considers beyond factuality.
3. We constructed the first Japanese fake news dataset with this approach.

This work can assist journalists, fact-checkers, and policymakers in better understanding and countering fake news.

Comparison of LLM Outputs on Fake News Research

Aspect	Grok	ChatGPT	Claude	Deepseek	Perplexity	Human (Aman Anand)
Introduction to Problem	Fake news affects elections, health, and society	Fake news has caused serious problems in society, affecting politics, economy, public health	Fake news causes damage to society in economics, politics, and health	Fake news has caused serious harm in economy, politics, and health	Fake news has caused significant harm across various sectors	Fake news has generated severe issues in society, impacting politics, economics, public health
Examples Given	2016 U.S. election, COVID-19 pandemic	2016 U.S. presidential election (Twitter), COVID-19 vaccine misinformation	2016 U.S. election, COVID-19 vaccine information	2016 U.S. election, COVID-19 pandemic	2016 U.S. election (Twitter), COVID-19 vaccine claims	2016 U.S. election (Twitter), COVID-19 vaccine fertility claims
Current Limitation	Most studies focus only on true/false	Understanding fake news requires more than just checking factuality	Existing research mainly focuses on detecting if news is factual	Datasets mainly focus on whether news is factual	Previous studies focused on classifying factuality	Most detection attempts deal with only true/false nature
Annotation Scheme Dimensions	7 dimensions listed	7 dimensions listed with detailed descriptions	7 dimensions listed	7 dimensions listed	7 dimensions listed	7 dimensions listed
Implementation	Created first Japanese fake news dataset	Created first Japanese fake news dataset	Built first Japanese fake news dataset	Created first Japanese fake news dataset	Constructed Japanese fake news dataset	Established first Japanese fake news dataset
Future Plans	Apply to English and other languages	Apply to English and other languages	Apply to English and other languages	Apply to English and other languages	Can be applied to other languages	Extend to English and other languages
Key Contributions Listed	3 contributions	3 contributions	3 contributions	3 contributions	3 contributions	3 contributions
Presentation Style	Short paragraphs, bullet points	Detailed paragraphs, bullet points	Structured with headers, bullet points	Detailed paragraphs, bullet points	Structured with headers, detailed text	Paragraphs with numbered lists
Unique Elements	Brief, concise writing style	Mentions practical applications (helping journalists)	Uses clear section headers and organization	More detail on practical uses	Most formal academic style	Written in first person plural