

# Chat GPT 4o Simplified Version

(OpenAI)

## Understanding Fake News and Its Impact

Fake news has caused serious problems in many areas, including politics, the economy, and public health. For example, during the 2016 U.S. presidential election, 529 false claims were spread on Twitter, influencing public opinion. Similarly, during the COVID-19 pandemic, misinformation about vaccines and infertility spread widely, causing fear and confusion.

To address the growing issue of fake news, researchers have developed various tools to detect and classify false information. Several datasets, such as Fake News Net, Twitter16, and CoAID, have been created to help identify fake news. However, most of these studies focus only on whether the news is factually correct, without considering other important aspects.

Our study aims to improve the understanding of fake news by looking at multiple perspectives. We introduce a new way to label fake news, considering factors such as:

1. **Factuality** – Whether the news is true or false.
2. **Intention** – Whether the person spreading it knows it's false.
3. **Target** – Who or what the news is aimed at.
4. **Reporting Method** – How the news presents the target.
5. **Purpose** – Why the fake news was created.
6. **Harm to Society** – The impact it has on people.
7. **Type of Harm** – The specific damage it causes.

Using this system, we have created the first Japanese fake news dataset. This dataset will help us study how fake news spreads in Japan. In the future, we plan to apply the same method to datasets in English and other languages to compare fake news trends across different countries.

## Key Contributions:

- We identify challenges in building fake news datasets.
- We introduce a new way to analyze fake news beyond just factuality.
- We create the first Japanese fake news dataset using our new approach.

This work will help journalists, fact-checkers, and policymakers better understand and fight the spread of fake news.

# ChatGPT o1 Simplified Version

(OpenAI)

## Simplified Version

Fake news has caused serious harm to society, affecting the economy, politics, and public health. For example, during the 2016 U.S. presidential election, 529 false statements were shared on Twitter, and about 25% of linked news outlets were either fake or extremely biased. During the COVID-19 pandemic, false information about vaccines (such as linking them to infertility) spread quickly, worsening public confusion.

Most fake news research so far has focused mainly on checking the factual accuracy of news. However, we believe a broader approach is needed. We propose a new annotation method that considers seven factors: (1) factuality, (2) the disseminator's intention, (3) the target, (4) the reporting method, (5) the purpose, (6) potential societal harm, and (7) the types of harm caused.

Using this new annotation approach, we created the first Japanese fake news dataset. This dataset will improve our understanding of how fake news spreads in Japan. In the future, we will apply the same method to English and other languages to compare fake news patterns worldwide.

## Key Contributions

- We highlight problems in building fake news datasets.
- We introduce an annotation scheme that goes beyond factual accuracy.
- We create the first Japanese fake news dataset using this new scheme.

# Copilot Simplified Version

(Microsoft + OpenAI)

Fake news has caused major harm to society in areas like the economy, politics, and health. For instance, during the 2016 U.S. presidential election, many fake or biased news statements on Twitter may have influenced the outcome. Similarly, during the COVID-19 pandemic, disinformation spread quickly, such as false claims linking the vaccine to infertility.

Fake news is a growing crisis for society and social media. Existing studies have mostly focused on detecting fake news by checking its factual accuracy. Various datasets, like Fake News Net and CoAID, have been created to support these efforts. However, understanding fake news goes beyond just its factual correctness. It also involves considering its intentions, harm, and targets.

To address this, researchers developed a new approach to analyze fake news from multiple perspectives, including:

1. Factual accuracy.
2. The intent of the person spreading the news.
3. Who the news targets.
4. How it targets them.
5. Its purpose.
6. The potential harm it causes to society.
7. Types of harm.

Using this approach, they created the first Japanese fake news dataset to better understand its spread in Japan. In the future, this method could be applied to fake news in other languages and countries for further analysis. This research provides valuable insights for journalists, policymakers, and others working to combat fake news.

# Gemini Simplified Version

(Google DeepMind)

Fake news is a serious problem, causing harm in areas like politics, health, and the economy. Existing research mainly focuses on whether news is factually correct. However, just knowing if something is true or false isn't enough to fully understand fake news and its effects.

This study argues that we need to look at fake news from different angles, not just factuality. We propose a new way to label fake news, considering things like:

- **Why** someone spread it (their intention).
- **Who** the news is targeting.
- **How** the target is affected.
- **What** the goal of the fake news is.
- **What** harm it could cause.
- **What type** of harm.

To show the value of this approach, we created the first Japanese fake news dataset using this new labeling method. This dataset helps us understand how fake news spreads in Japan. We plan to use this method on fake news datasets in other languages to compare and learn more about this global issue.

## **In summary, this study:**

- Points out the limitations of current fake news datasets.
- Introduces a new way to label fake news from multiple perspectives.
- Builds a new Japanese fake news dataset using this approach.

# Perplexity Simplified Version

(by Aravind Srinivas)

Fake news has caused significant harm across various sectors, including the economy, politics, and health. For instance, during the 2016 U.S. presidential election, numerous false 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.

To combat this issue, researchers have developed tasks like fake news detection and created datasets like Fake News Net and Twitter16. However, these studies primarily focus on whether news is factually true or false.

Our work aims to enhance understanding by considering multiple aspects of fake news:

- **Factuality:** Whether the news is true or false.
- **Intention:** Why the false news is being spread.
- **Target:** Who or what the news is aimed at.
- **Method:** How the target is reported.
- **Purpose:** The goal of spreading the news.
- **Potential Harm:** How it affects society.
- **Types of Harm:** Specific negative impacts.

We propose a new annotation scheme to capture these perspectives and have created the first Japanese fake news dataset using this approach. This work contributes by:

- **Identifying Issues:** Highlighting gaps in existing datasets.
- **Novel Annotation Scheme:** Providing a comprehensive view beyond just factuality.
- **Japanese Dataset:** Creating a unique dataset for Japan, with plans to apply this method globally for deeper analysis.

This approach will help build more effective fake news detection systems and provide valuable insights for journalists, policymakers, and government entities

# DeepSeek Simplified Version

(by Chinese AI research group)

## Problem:

Fake news harms society by spreading lies about politics, health (like COVID-19 vaccine myths), and the economy. For example, during the 2016 U.S. election, hundreds of false claims on Twitter likely influenced voters. Current tools to fight fake news focus only on checking if a story is true or false, but this misses important details like why it was created or who it harms.

## Limitations of Current Solutions:

Existing datasets (e.g., Fake News Net, Twitter16) label news as "real" or "fake" but ignore other key factors, such as the intent behind spreading lies or the real-world harm caused.

## New Approach:

We propose a richer way to analyze fake news by labeling it based on:

1. Factuality: Is the news true or false?
2. Intent: Was the lie spread on purpose?
3. Target: Who/what is the lie attacking (e.g., a person, group, or idea)?
4. Method: How is the lie presented (e.g., fake quotes, edited images)?
5. Purpose: Why was it created (e.g., to scare people, make money)?
6. Harm: Could it cause real damage (e.g., violence, health risks)?

## New Dataset:

We built the first Japanese fake news dataset using this system. This helps researchers study how fake news spreads in Japan and compare it to other countries. Future plans include applying this method to English and other languages.

## Why This Matters:

- Helps journalists, governments, and fact-checkers understand how and why fake news spreads.
- Improves tools to detect dangerous misinformation before it causes harm.
- Encourages global comparisons of fake news trends (e.g., differences between countries).

## Key Contributions:

1. Highlighted gaps in current fake news datasets.
2. Created a detailed labeling system to study fake news from multiple angles.
3. Launched the first Japanese dataset using this approach.

# Grok AI Simplified Version

(xAI)

Fake news has caused serious problems in areas like the economy, politics, and health. For instance, during the 2016 U.S. election, over 500 false or misleading statements spread on Twitter, and 25% of tweeted news links were fake or heavily biased toward Trump or Clinton, possibly affecting the election. During the COVID-19 pandemic in 2020, false claims, like linking the vaccine to infertility, also spread widely. Fake news is a growing crisis that harms society and social media.

Past efforts to fight fake news have focused on detecting it—figuring out if news is true or false—using datasets like Fake News Net and Twitter16. However, these datasets mainly look at whether something is factual, which doesn't tell the whole story. To better understand fake news, we need more than just facts. We need to know things like why someone spreads it, who it targets, and how it could harm society.

We created a new way to label fake news, looking at seven key points: (1) if it's true or false, (2) what the spreader intends, (3) who it's aimed at, (4) how it describes them, (5) its purpose, (6) how it might hurt society, and (7) what kind of harm it could cause. This approach gives a fuller picture of fake news and could help build better detection systems for journalists, fact-checkers, and policymakers.

Using this method, we made the first Japanese fake news dataset to study 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 and learn even more about it.

## **Key Points of Our Work:**

- We reviewed existing fake news datasets and found gaps to fix.
- We designed a new labeling system that looks beyond just facts.
- We built the first Japanese fake news dataset with this system.

## Human Simplified Version:

Fake news has caused serious harm in society, affecting politics, health, and the economy. For example, during the 2016 U.S. presidential election, false statements spread on Twitter influenced public opinion. Similarly, during the COVID-19 pandemic, misinformation about vaccines led to fear and confusion. There are many fake news detection programs, but they only check whether the news is true or false. In order to better understand fake news, they propose a new approach that takes into account seven key factors, including the intent behind spreading it, its target, and its potential harm. In this way, they created the first Japanese fake news dataset, which will allow them to analyze how misinformation spreads in the country. Journalists, policymakers, and fact-checkers can use this research to develop better tools to combat misinformation.



# Comparison Analysis of All LLM'S

LLM Version	Pros	Cons
DeepSeek (Best)	Highly structured, well-organized, covers all key aspects, visually easy to read.	Slightly longer than other versions.(Too Detailed)
ChatGPT-4o	Well-structured, logical flow between problem, solution, and contributions.	Could be slightly more concise in some parts.
Perplexity	Good balance between detail and readability, covers key contributions.	Lacks important key points, making it less engaging.
ChatGPT-3.5 (o1)	Covers seven factors well in easy and straightforward way.	Less engaging than GPT-4o or DeepSeek, weaker structuring of ideas.
Copilot	Easy to read and simplified, focuses on the core idea of fake news detection.	Oversimplifies key details, lacks structure and depth.
Gemini	Very easy to read, and good for general audiences who wants the gist of paragraph.	Too brief, missing important aspects and points.
Grok AI	Detailed and Cover most of the things	Too Complex for general reading
Human's Version	Straightforward, simple and easy to understand.	Unstructured, lacks depth explanation.