Annotation-Scheme Reconstruction for “Fake News” and Japanese Fake News Dataset

What we do

Propose Annotation Scheme

Existing Scheme
Factuality Label
Fake or Real

What is the intention of the news disseminators?
What is the target of the news article?
What is the negative impact of the news article?

Japanese Fake News Dataset
https://hkekla385.github.io/dataset/fakenews-japanese/

A labelled dataset containing 307 news items, 471,446 tweets, and 277,106 users
- Identifies issues with existing fake news detection datasets
- Proposes a new annotation scheme to understand fake news from various perspectives.
- The first Japanese-language fake news dataset based on the proposed annotation scheme
- Analysis of Fake News in Japan news and its spread compared to the U.S.

Questions in our Annotation Scheme
- Propose an annotation scheme to understand fake news and the phenomena it causes based on the issues of existing fake news detection datasets
- Question 2 covers the intention of the disseminator
- Question 3,4 covers the target of the news article.
- Questions 6, 7 cover the harmfulness to society of the fake news

Analysis of Japanese Fake News Dataset
Analysis of 307 news items, 471,446 tweets, and 277,106 users in the constructed dataset
- WordCloud for each label in Question 7
- The proportion of Bot users in the dataset.
- Ages of user accounts in the dataset
- A news article that is definitely false.
- A news article that is probably false.
- A news article that is probably true.
- A news article that is definitely true.

The issues of Fake News Datasets

Intention
- Definition of fake news: “a news article that is intentionally and verifiably false.”
- The existing datasets only focus on the factuality of the news.
- To understand and counter fake news, the intention of the disseminator is equally essential.

Harmfulness to society
- Fact-checking priorities depend on the content and genre of the news.
- Fake news dataset construction annotated on social impact can be utilised to determine which news stories to fact-check.

Label
- 33 of 51 existing fake news detection datasets are binary labels of “true” or “false.” Other datasets incorporate labels from fact-checking organisations.
- It is essential to unify the labelling for each dataset with a fine-grained and detailed annotation scheme

Language
- Many datasets built on data covering U.S. society (40 / 51)
- 8 of 11 fake news detection datasets in languages other than English target COVID-19 events

Annotation Examples

Original Tweet

Annotation

Q3: What is the target of the false news?

Q4: Does the news flatter or denigrate the target?

Q5: What is the negative impact of the news article?

Q1: What rating does the fact-checking site assign to the news?

Q2: Does the news disseminator know that the news is false?

Q2-A: If yes (disinformation), how was the news created?

Q2-B: If no, how does the disseminator misunderstand the news?

Q3: Who or what is the target of the false news?

Q4: Does the news flatter or denigrate the target?

Q5: What is the purpose of the fake news?

Q6: To what extent is the news harmful to society?

Q7: What types of harm can the news cause?

Analysis

Question 1: Does the news disseminator know that the news is false?

Question 2: How was the news created?

Question 3: Who or what is the target of the false news?

Question 4: Does the news flatter or denigrate the target?

Question 5: What is the negative impact of the news article?

Question 6: To what extent is the news harmful to society?

Question 7: What types of harm can the news cause?