Solution to detect fake news

Principal 1: Tally with renowned news sources.

Working: Viral extent of a news can be taken from trending tags on social media and other news sharing aps like newshound, inshorts, etc. Viral extent maybe taken into account for determining whether news is fake or not. Tags and key words from the headline and content of the news can be used in a search algorithm that checks whether an article with same keywords is present on the renowned news sources or not. Accordingly a news can be declared fake or genuine. For determining a renowned source basic criteria such as year of establishment, user reviews, etc. are taken into account.

Pros: No human interaction.

Cons: Might show real news fake if no occurrences found on renowned sources. Can be overcome by little human input.

Principle 2: Human resource

Working: Can be of 2 types: 1. Dedicated experts 2. Crowdsourcing

1. Dedicated experts can review after an algorithm does basic filtration.

Pros: High accuracy

Cons: Slow process, expensive deal

2. Volunteers who act as moderators can flag an article fake or genuine and according to the reports fake news can be segregated from the genuine one. There could be a reward, rating, and recognition system that motivates users to flag the fake news.

Pros: Can be accurate to a large extent

Cons: Cannot trust all volunteers but if sample size is huge, average reviews can result in accurate flagging of the news.

Addons: Image processing techniques can be used to do the above mentioned tasks on images that are shared across the social media.

Determination of percentage of authenticity (or percentage of it being fake)

Over time the algorithm can learn which keywords are highly likely to be used in a fake article. On this basis, it will increase the confidence of the percentage determined by the algorithm and consequently decrease human intervention. The weighted mean of all percentages will give the final percentage.

Confidence of P1 (by computer) = x

Confidence of P2 (by computer) = y

Confidence of P3 (by computer) = z

Where P is the percentage.

x + y + z = 1

Percentage P = P1x + P2y + P3z

As the computer keeps learning to identify keywords, genres and trends of highly faked news, it will ask for human intervention for fewer links.

P1 is a function of number of keywords that match patterns of highly faked news, difference from original source, reliability of original source, genre and trend.

P2  = /

P3 = Same as P2 (replace P2 by people)

One such algorithm can be made that understands the context and accordingly matches latest news from renowned sources and finally determines the percentage of authenticity. For example, fake news is that a celebrity died in a car accident. The algorithm understands the context as tragedy and car accident and look for similar occurrences. Say no such keyword was found that suggests that the celebrity actually died in that. Therefore, taking all the information into account a percentage of authenticity can be determined.