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FROM KNOWLEDGE TO ACTION APPLICATION

Title: Developing a Linguistic-Based Fake News Screener in the Field of Healthcare

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Category: From Science to Society

Problem (max. 50 words):

Fake news spreads on digital platforms about ten times faster than real news, which has major negative effects on a number of sectors, including healthcare. Despite the fact that detecting disinformation has become essential in both science and politics globally, the general public lacks an available tool for doing so.

Unmet Need (max. 50 words):

Current methods are very limited and expensive. They require considerable human resources (fact checking), or they rely mainly on vocabulary of texts (NLP-based algorithms). Since disinformation is expressed through various linguistic elements, a detailed linguistic analysis seems to be fruitful. An easily applicable linguistic-based disinformation detection method is needed.

Project Description (max. 200 words):

This project intends to develop an analytic tool for the detection of Hungarian health-related fake news. The tool translates research findings of linguistic analysis of fake news into practical assessment of health-related news. The comparative linguistic analysis of Hungarian health-related fake and real news in MedCollect corpus has revealed that there are significant differences between fake and real news regarding the frequency and function of certain linguistic elements and influencing strategies. These include the use of imperative forms, indirect directives, implicit pragmatic phenomena in headlines, social deixis, grammatical and lexical intensifications, quoting etc. The corpus-based, comparative statistical analysis of the use of linguistic elements in Hungarian health-related fake and real news has shown that the theoretically based, fine-grained empirical identification of the linguistic differences between fake and real news can contribute to the detecting of fake news. Consequently, the translating the results into the practice can be a very useful tool in the fight against the dissemination of false information in the field of healthcare. This project aims to construct a fake news screener in the form of a decision tree which visualizes potential steps in the process of the detection of fake news based on linguistic items.



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Hypothesis (25 words):

A fake news screener in the form of a decision tree based on linguistic information can be a useful tool identifying disinformation for lay people.

Implication for Practice (50 words):

A freely available fake news screener in the form of a decision tree based on linguistic information fosters critical reading skills of people. In addition, it can be a very useful tool in the fight against the dissemination of false information for policy makers, healthcare institutions etc.

Implication for Research (50 words):

This methodology could be applied both to similar studies in other languages and not only in the field of healthcare. In addition, the results of the linguistic analysis of fake news raises problems solving of which may contribute to the identification of pseudoscientific communication and drastically alter science communication.