Identifying (deep) fake news communities on multiple social networks

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Abstract. *The misuse of Deepfakes and the rise of Fake News have become a significant challenge in the era of social media, posing serious threats to the credibility of information shared online. Additionally, individuals and groups can become targets of these malicious actions, creating communities that believe and share news of the same malicious sources. This problem is not exclusive to a single social media platform, which highlights the urgent need for robust fact-checking mechanisms, as well as solutions to identify these specific communities, that will help create a safer online environment.*

1. Introduction

Fake News and Deepfakes are one of the biggest challenges in today's social media, threatening the credibility of information shared online. Fake News is defined as incorrect or misleading information fabricated to mimic the structure of the news media, but without the process of ensuring accuracy and credibility ([Lazer et al. 2018]), and Deepfake is a form of multimedia manipulation that leverages advanced machine learning and artificial intelligence techniques to manipulate or generate visual and audio content, with a high capacity to deceive viewers ([Kietzmann et al. 2020]).

This phenomenon poses serious threats to today's social media, as it spreads faster and more broadly than credible information ([Vosoughi et al. 2018]), and Deepfakes are becoming more accessible and believable ([Kietzmann et al. 2020]). This reinforces the importance of further research on this topic. Hence, the primary objectives of this study are to analyze various methodologies for detecting Fake News and Deepfakes, as well as to examine and identify the communities associated with them.

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