SIGNIFICANT NEWS DETECTION

by

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A THESIS

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THESIS APPROVAL FORM

Submitted by Diwas Sharma in partial fulfillment of the requirements for the degree of Master of Science in Computer Science in Computer Science and accepted on behalf of the Faculty of the School of Graduate Studies by the thesis committee.

We, the undersigned members of the Graduate Faculty of The University of Alabama in Huntsville, certify that we have advised and/or supervised the candidate of the work described in this thesis. We further certify that we have reviewed the thesis manuscript and approve it in partial fulfillment of the requirements for the degree of Master of Science in Computer Science in Computer Science.

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ABSTRACT

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Social media platforms nowadays have a large number of fake or false news which have been misleading and negatively impacting viewers. In order to combat the problem, being able to differentiate important news stories which need to be verified from unimportant news stories which need not, would be a decent starting point. In this thesis, we introduce "significant news" and define it as news that affects a large number of people, changes the routines of daily life, and needs verification on the information presented. This thesis then explores if it is possible to construct a classifier for detecting the significant news articles.

A dataset containing 1548 significant and 595 non-significant articles was prepared by manually labelling the posts obtained from Twitter. Various classifiers including logistic regression, support vector machine, random forest, and neural network – were trained on the dataset. They each achieved an accuracy greater than 90 percent, with the neural network model achieving the highest accuracy of 93.654 percent. This indicates that it is in fact possible to build fairly accurate classifiers for detecting significant news. This thesis then describes a few possible future directions

that could be explored for further improving the performance of significant news detection.

Abstract Approval: Committee Chair

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