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## Dynamic spam filtering using ontology

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Email is one of the most efficient means of communication. Important features of Email such as availability, being free and having no limitation in time and place, makes it highly popular among the internet users. Despite that, the growth of using Email has resulted in dramatic increasing of the unsolicited bulk Email, known as Spam. Several approaches have been proposed to deal with Spam, and filtering is the most famous one. In this thesis, a dynamic Content-Based Spam filtering method is proposed using Word Net Ontology and Wikipedia Knowledge base. Consideration of meaning as well as using semantic similarity methods has led to overcoming the problem of Word Ambiguity. Despite machine learning based models, our filter is data set independent method and shows high accuracy in spam detection. The idea of combining experts causes filtering error correction, and organizing users' priorities in different user profiles provides personalization, and user priorities improve during the enrichment process. The general user profile enables users to share their experiences of Spam, as the most important feature. The proposed filter model is dynamic, so it keeps its high 98.26 percentage recall and 92.32 percentage accuracy in deal with any changes in user priorities or incoming Emails. Our proposed filter recall is 2.26 percentage higher than a previous filter which was evaluated using the same data set. In the other hand its recall is 0.24 percentage lower than the recall of the other method which was evaluated using a different data set. In spite of this decrease, our proposed filter has a benefit of being data set independent.

### Biography

Minoo Raki has completed her masters degree in computer architecture from Azad University of Dezfoul, Khuzestan, Iran and bachelor degree in computer engineering from Sheykh-bahaei University of Isfahan, Iran. Her interests lie in the area of Data mining, Semantic web and data analysis. She has 2- years experience of Practical work as a computer operator and almost 3-year experience of instructing and tutoring.

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