

Emotion Mining and Attribute Selection for Actionable Recommendations to Improve Customer Satisfaction

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Abstract : In today's world, business often depends on the customer feedback and reviews. Sentiment analysis helps identify and extract information about the sentiment or emotion of the of the topic or document. Attribute selection is a challenging problem, especially with large datasets in actionable pattern mining algorithms. Action Rule Mining is one of the methods to discover actionable patterns from data. Action Rules are rules that help describe specific actions to be made in the form of conditions that help achieve the desired outcome. The rules help to change from any undesirable or negative state to a more desirable or positive state. In this paper, we present a Lexicon based weighted scheme approach to identify emotions from customer feedback data in the area of manufacturing business. Also, we use Rough sets and explore the attribute selection method for large scale datasets. Then we apply Actionable pattern mining to extract possible emotion change recommendations. This kind of recommendations help business analyst to improve their customer service which leads to customer satisfaction and increase sales revenue.

Keywords : actionable pattern discovery, attribute selection, business data, data mining, emotion

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