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Text Analytics for Sports Fan Engagement in Social Media

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TREO Talk Paper

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Abstract

Digital communications have greatly increased the engagements between customers and businesses of all varieties, to include university athletic programs and their fans. Interaction and engagement through social media content plays a critical role in developing the relationship between fans and their favorite teams [1] and boosting brand popularity [2]. In this study we reviewed the existing literature pertaining to the use of sentiment analysis and content categorization for university sports fan engagements. Dozens of sources were examined and their methodologies explored. This study seeks to demonstrate that the use of text mining and sentiment analysis can provide significant time savings to the athletics departments for the betterment of their data understanding. In turn this process will yield improved fan engagement of a growing fan base without increased personnel hours being expended. Using the textual data gathered from Basketball Season Ticket Holder Survey Results at a major Midwestern university in the United States, multiple analytical models were created, using several different text mining packages, each one seeking to classify the polarity of the comments being examined. The study explored the possibility of classifying comments as positive or negative at the sentence level or by combining several statements originative from a single comment. Statements were further categorized according to the subject matter of the comment. Inconsistencies were found between what these models determined and what a basic understanding of English suggests is actually true. Through tweaking of models and usage of more effective text mining algorithms performance improved. Ultimately, it was determined that text mining and sentiment analysis models would be capable of performing the necessary analysis. Implications for research and practice are discussed.

Keywords: Social media, sentiment analysis, opinion mining, university athletics, college sports, fan engagement

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