

Mining Insights from Sports Game Reviews with an Aspects based Sentiment Analysis Framework

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Abstract: Player-versus-player games and its accompanying tournament expansion have propelled esports games into a rapidly growing force in the gaming industry. Despite the strong cooperation between professional esports teams and operators, the voices of novice and armature players are sometimes disregarded due to a lack of useful analytical techniques. It is crucial to take into account the opinions of amateur players and carefully examine their reviews in order to guarantee the caliber of esports game services and create a fair gaming environment. This study suggests a novel approach for examining player evaluations in esports. Sentiment analysis and topic modeling are its two main components. Diverse subjects within reviews are efficiently identified by the framework through the use of the Latent Dirichlet Allocation (LDA) method. These themes were then used in a prevalence analysis to determine the relationships between players' worries and different esports games. Additionally, it makes use of a Transformer (TFM) downstream layer in conjunction with state-of-the-art Bidirectional Encoder Representations from Transformers (BERT) to accurately detect players' feelings toward various themes.

Keywords: Esports, topic modeling, prevalence analysis, sentiment analysis, steam

