Journal of The Gujarat Research Society
ISSN: 0374-8588
Volume 21 Issue 11, November 2019

REVIEW ON PREDICTING THE FUTURE WITH SOCIAL MEDIA

Dr. Charles Godwin K
Assistant Professor, Department of Management Studies, Center for Management Studies, Jain (Deemed-to-be University), Banagalore, India
Email Id- dr.charles_godwin@cms.ac.in

Abstract

In latest years, social media has come to be ubiquitous and vital for social networking and content material sharing. And but, the content this is generated from these websites stays largely untapped. in this paper, we display how social media content material may be used to expect actual-world effects. Specifically, we use the chatter from Twitter.com to forecast container-office revenues for movies. We display that a simple model constructed from the fee at which tweets are created about precise topics can outperform marketplace-primarily based predictors. We in addition display how sentiments extracted from Twitter may be applied to improve the forecasting power of social media. Specifically, we consider the task of predicting box-office revenues for movies using the chatter from Twitter, one of the fastest growing social networks in the Internet. We have focused on movies in this study for two main reasons which discussed in this paper.

Keywords: *Information, Predicting Social Media, Social Networking, Twitter.*

I. INTRODUCTION

Social media has exploded as a class of on line discourse where people create content, share, bookmark and network at a prodigious price. Examples include fb, Myspace, Digg, Twitter and JISC listservs on the instructional facet. due to its ease of use, pace and reach, social media is fast converting the general public discourse in society and placing tendencies and agendas in topics that variety from the environment and politics to era and the enjoyment enterprise on the grounds that social media can also be construed as a form of collective awareness, we determined to investigate its strength at predicting actual-world consequences. Exceptionally, we located that the chatter of a community can certainly be used to make quantitative predictions that outperform the ones of artificial markets [1].

These information markets usually contain the trading of country-contingent securities, and if large enough and nicely designed, they're usually more accurate than different techniques for

extracting diffuse facts, together with surveys and critiques polls. particularly, the expenses in those markets had been proven to have robust correlations with observed outcome frequencies, and as a result are suitable indicators of destiny effects [2]. Inside the case of social media, the enormity and excessive variance of the statistics that propagates thru big user groups gives a thrilling possibility for harnessing that information right into a form that lets in for specific predictions one also can build models to aggregate the evaluations of the collective populace and gain useful insights into their behavior, while predicting future developments [3].
Furthermore, collecting statistics on how human beings speak concerning unique products may be beneficial while designing advertising and advertising campaigns. This paper reports on this type of examine. particularly we keep in mind the challenge of predicting box-office revenues for movies using the chatter from Twitter, one of the quickest growing social networks within the net. Twitter 1, a micro-running a blog community, has skilled a burst of popularity in recent months main to a massive user-base, inclusive of several tens of hundreds of thousands of customers who actively participate inside the introduction and propagation of content. we've focused on movies on this have a look at for two important motives [4].

- The topic of movies is of substantial interest among the social media user network, characterized both with the aid of massive range of users discussing movies, in addition to a vast variance of their critiques.
- The actual-global outcomes may be easily determined from box-workplace revenue for films.

Our desires in this paper are as follows. First, we verify how buzz and attention is created for specific films and the way that adjustments through the years. movie producers spend a number of attempt and cash in publicizing their movies, and have also embraced the Twitter medium for this reason. We then recognition at the mechanism of viral advertising and marketing and pre-release hype on Twitter, and the function that attention plays in forecasting real-global box-office performance [5]. Our hypothesis is that films which might be well talked about will be properly-watched. subsequent, we examine how sentiments are created, how fantastic and bad opinions propagate and how they have an impact on humans. For a terrible movie, the initial opinions is probably sufficient to discourage others from looking it, even as however, it is viable for hobby to be generated with the aid of fantastic critiques and critiques over the years. For this reason, we carry out sentiment evaluation at the statistics, the usage of textual content classifiers to differentiate positively oriented tweets from bad. Our conclusions are as follows:

- We show that social media feeds can be effective signs of actual-world overall performance.
- We located that the price at which movie tweets are generated can be used to build a powerful version for predicting movie container-office sales.

Furthermore, us predictions are consistently better than those produced by means of an information marketplace together with the Hollywood inventory exchange, the gold well known within the industry.

II. DISCUSSION

Dataset Characteristics

The dataset that we used become acquired through crawling an everyday feed of information from Twitter.com. To make sure that we acquired all tweets relating to a movie, we used key phrases present in the movie name as seek arguments. We extracted tweets over frequent periods the use of the Twitter search Api 4, thereby making sure we had the timestamp, creator and tweet text for our evaluation [6]. We extracted 2.89 million tweets referring to 24 exclusive movies launched over a length of three months. Movies are typically launched on Fridays, with the exception of some that are released on Wednesday. considering a median of two new films are launched each week, we accrued facts over a term of 3 months from November to February to have sufficient facts to degree predictive conduct [7].

For consistency, we only took into consideration the movies launched on a Friday and only those in extensive release. For films that have been first of all in confined release, we began gathering information from the time it became huge. For each movie, we outline the essential period because the time from the week earlier than it's far launched, when the promotional campaigns are in complete swing, to two weeks after launch, when its popularity fades and opinions from people were disseminated. Some details at the films selected and their launch dates are provided in desk [8]. Be aware that, some movies that had been launched for the duration considered had been no longer used on this look at, absolutely as it becomes hard to correctly identify tweets that were applicable to those films. as an example, for the movie 2012, it changed into impractical to segregate tweets speaking approximately the film, from those regarding the year. We have taken care to make sure that the statistics we've got used was

Attention and Popularity

Our goal is to observe if the knowledge that can be extracted from the tweets can lead to reasonably accurate prediction of future outcomes in the real world. The problem that we wish to tackle can be framed as follows. Using the tweets referring to movies prior to their release, can we accurately predict the box-office revenue generated by the movie in its opening weekend? To build a predictive model for real-world effects on twitter, we first need quantifiable measures for capturing the attention and popularity that different movies receive [9].

Effect of Promotional Material: Urls and Retweets

Previous to the release of a movie, media agencies and producers generate promotional data inside the form of trailer motion pictures, information, blogs and pics. We anticipate the tweets for movies earlier than the time of their launch to consist frequently of such promotional campaigns, geared to promote word-of mouth cascades. On Twitter, this could be characterized with the aid of tweets referring to precise urls (photographs, trailers and different promotional cloth) as well as retweets, which contain users forwarding tweet posts to everyone of their friend-list. Each these forms of tweets are important to disseminate statistics regarding movies being released. First, we have a look at the distribution of such tweets for extraordinary movies, following which we look at their correlation with the overall performance of the movies [10].

Rate of Tweet Mentions

The rate of tweet mentions for movies differs quite significantly across the movies considered. We define the tweet-rate, as the number of tweets referring to a particular movie per hour. Our initial analysis of the correlation of the average tweet rate with the box-office gross for the 24 movies considered showed a strong positive correlation, with a correlation coefficient value of 0.90. This suggests a strong linear relationship among the variables considered. Accordingly, we constructed a linear regression model using least squares of the average of all tweets for the 24 movies considered over the week prior to their release.

Predicting HSX prices

Given that social media can accurately predict box office results, we also tested their efficacy at forecasting the stock prices of the HSX index. At the end of the first weekend, the Hollywood stock exchange adjusts the price for a movie stock to reflect the actual box office gross. If the movie does not perform well, the price goes down and vice versa. conducted an experiment to see if we could predict the price of the HSX movie stock at the end of the opening weekend for the movies we have considered.

Predicting revenues for all movies for a given weekend

To compare with our tweet-based model, we used the Hollywood Stock Exchange index. The fact that artificial online markets such as the Foresight Exchange and the Hollywood Stock Exchange are good indicators of future outcomes has been shown previously. The prices in these markets have been shown to have strong correlations with observed outcome frequencies. In the case of movies, the Hollywood Stock Exchange (http://www.hsx.com/), is a popular play money market, where the prices for movie stocks can accurately predict real box office results. Hence, to compare with our tweet-rate predictor, we considered regression on the movie stock

prices from the Hollywood Stock Exchange, which can be considered the gold standard. From the results in Table IV, it can be seen that our regression model built from social media provides an accurate prediction of movie performances at the box office. Furthermore, the model built using the tweet rate time series outperforms the HSX-based model

III. CONCLUSION

In this text, we've got proven how social media can be utilized to forecast destiny effects. mainly, the use of the charge of chatter from nearly 3 million tweets from the popular site Twitter, we constructed a linear regression version for predicting box-office revenues of films earlier in their release. We then confirmed that the consequences outperformed in accuracy those of the Hollywood inventory change and that there may be a sturdy correlation among the quantity of interest a given topic has (in this case a drawing close movie) and its rating inside the destiny. We also analyzed the sentiments found in tweets and tested their efficacy at enhancing predictions after a movie has launched. While in this study we centered at the problem of predicting field workplace sales of movies for the sake of having a clear metric of comparison with other techniques, this approach can be extended to a massive panoply of topics, starting from the future score of merchandise to time table setting and election results. At a deeper degree, this painting suggests how social media expresses a collective expertise which, while properly tapped, can yield an extraordinarily effective and correct indicator of future outcomes.

IV. REFERENCES

[1] M. De Choudhury, M. Gamon, S. Counts, and E. Horvitz, “Predicting depression via social media,” 2013.
[2] S. Asur and B. A. Huberman, “Predicting the future with social media,” 2010, doi: 10.1109/WI-IAT.2010.63.
[3] G. Ver Steeg and A. Galstyan, “Information transfer in social media,” 2012, doi: 10.1145/2187836.2187906.
[4] K. K. Kapoor, K. Tamilmani, N. P. Rana, P. Patil, Y. K. Dwivedi, and S. Nerur, “Advances in Social Media Research: Past, Present and Future,” Inf. Syst. Front., 2018, doi: 10.1007/s10796-017-9810-y.
[5] J. Golbeck, C. Robles, and K. Turner, “Predicting personality with social media,” 2011, doi: 10.1145/1979742.1979614.
[6] M. Warschauer, “The paradoxical future of digital learning,” 2007, doi: 10.1007/s11519-007-0001-5.
[7] C. T. Carr and R. A. Hayes, “Social Media: Defining, Developing, and Divining,” Atl. J. Commun., 2015, doi: 10.1080/15456870.2015.972282.
[8] E. Gilbert and K. Karahalios, “Predicting tie strength with social media,” 2009, doi: 10.1145/1518701.1518736.
[9] J. Golbeck, C. Robles, M. Edmondson, and K. Turner, “Predicting personality from twitter,” 2011, doi: 10.1109/PASSAT/SocialCom.2011.33.
[10] I. Of and S. Media, “Impact of Social Media on,” Issn, 2012.