

Predicting The Future Popularity Of Online Videos.

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ABSTRACT

The big size of video content has been generated on the online web, and user keeping track of all the details requires your complete attention among those videos is spatial arrangement. With the likes hit comment or views. It's given the some of video become very popular. Understanding the popularity of online videos and predicting the future popularity of private videos as well as the future popularity of individual videos are of importance. According to this study such as advertisement planning, network management, and also view count up to 7 days. Total view count on the 7th day. Daily growth rate of view count up to 7th days. Aspects: popularity of long-term, hit's video, in public open popularity as well as it' demand or reaction on the video. We understand the challenge of future popularity predication.

Keyword: - Data analysis, CDN (content delivery network), UGC (user generated content), Data mining, CDF (cumulative distribution function), OSN (online social network).

1. INTRODUCTION

Internet and the services of Web 2.0 are interaction with users, it existing everywhere. A huge amount of online content has been brought into the digital world. Online video content producers can reach audiences in unbelievable amounts that are unrivalled through conventional channels. Among the vast amounts of online content, online videos are now a days a powerful component of the Internet. In this system, we study the video popularity. It is important to understand the characteristics of video popularity and their future popularity for online users. For service providers, the video popularity dynamics and prediction results can greatly benefit to their future design of the content filtering, video ranking and recommendation schemes, which help users to and videos with more potential values more easily. In this system, We predict the future popularity of online videos. Among a vast kinds of online contents, online videos are important component of the Internet.

The main goal of our system are: we provide a detailed knowledge of online videos. In particular, we provide insights into the popularity evolution patterns of the individual videos, We solve the problem of popularity prediction, We evaluate our knowledge on real-world dataset, We analyze the potentials and limitations of different detectors and model parameters in the prediction. We shed light on the importance of each feature and each feature group used in the burst prediction.

2. LITERATURE SURVEY

In this system author proposed Popular online video-on-demand (VoD) services all maintain a large catalog of videos for their users to access. The knowledge of video popularity is very important for system operation , such as video caching on content distribution network (CDN) servers. The video popularity distribution at a given time is quite well understood. study how the video popularity changes with time, for different types of videos, and apply the results to design video caching strategies.[1]

Author has developed, computer systems are increasingly driven by work loads that reflect large-scale social behaviour, such as rapid changes in the popularity of media items like videos. Capacity planners and system designers must plan for rapid, massive changes in workloads when such social behaviour is a factor make two contributions intended to assist in the design and provisioning of such systems analyse an extensive dataset consisting of the daily access counts of hundreds of thousands of YouTube videos. In this dataset, find that there are two types of videos: those that show rapid changes in popularity, and those that are consistently popular over long time periods. [2]

Author has develop a technique that Understanding the factors that impact the popularity dynamics of social media can drive the design of effective information services, besides providing valuable insights to content generators and online advertisers. Taking YouTube as case study, we analyse how video popularity evolves since upload, extracting popularity trends that characterize groups of videos. We also analyse the referrers that lead users to videos, correlating them, features of the video and early popularity measures with the popularity trend and total observed popularity the video will experience. [3]

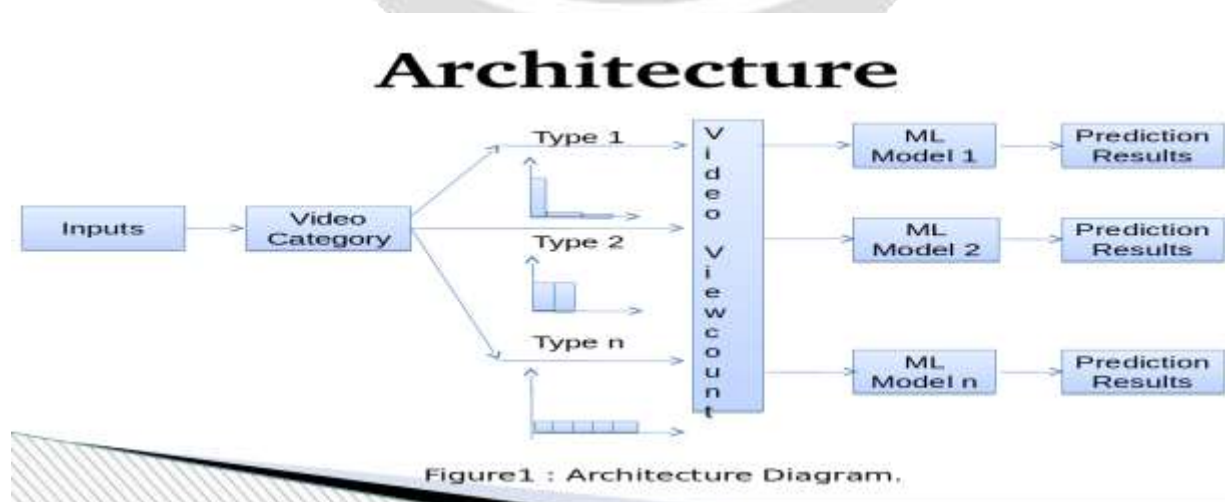
Author has developed, Previous research on online media popularity prediction concluded that the rise in popularity of online videos maintains a conventional logarithmic distribution. However, recent studies have shown that a significant portion of online videos exhibit bursty/sudden rise in popularity, which can not be accounted for by video domain features alone.[4]

3. EXISTING SYSTEM

In earlier days existing system can't predict and characterize the video popularity. Hence we proposes this system. News articles are an engaging type of online content that captures the attention of a significant amount of Internet users. As a result, there is an increased interest in discovering the articles that will be come popular among users. This objective falls under the broad scope of content popularity prediction and has direct implications in the development of new services for online advertisement and content distribution. In this paper, address the problem of predicting the popularity of videos based on user comments and likes. Previous research on online media popularity prediction concluded that the rise in popularity of online videos maintains a conventional logarithmic distribution. However, recent studies have shown that a significant portion of online videos exhibit bursty/sudden rise in popularity, which cannot be accounted for by video domain features alone. Our findings provide fundamental knowledge about popularity dynamics and its implications for services such as advertising and search.

4. PROPOSED SYSTEM:

This paper focuses on an improve future prediction of online videos. To the best of our knowledge, the proposed method is the specialize models by popularity evolution patterns in the popularity prediction. We evaluate our model on a real-world dataset and compare the prediction performance with two state of the art online video



popularity prediction models. A small fraction of videos attract most of the user interest, whereas the vast majority of videos are of limited views. Given the huge amount of video content and the high variability of user attention, it is of almost importance for a number of tasks to understand the characteristics of online video popularity and further predict the popularity of individual videos. For service providers, the video popularity dynamics and prediction results can greatly benefit their future design of the content filtering, video ranking, and recommendation schemes, which help users to find videos with more potential values more easily.

With the extrapolation of video popularity, network operators can proactively manage the bandwidth requirement and deploy the cache servers in the content delivery network (CDN) for hot videos in advance. In addition, in a quite different context, the video popularity will be of great interest in the opportunistic communications among mobile devices. In such resource-constrained environments predicting hot videos is helpful for the content delivering, caching and replicating on the device end. In this system, we study the video popularity, a leading online video service provider. With these data, we analyze in-depth how the popularity of online video content evolves over time, and how to predict the future popularity of an individual video. The main contributions of our work are summarized as describe. We provide a detailed characterization of the popularity dynamics of online videos. In particular, we provide insights into the popularity evolution patterns of the individual videos. We tackle the problem of popularity prediction by proposing a model that can capture the popularity evolution of an individual video. To the best of our knowledge, the proposed method is the specialize models by popularity evolution patterns in the popularity prediction. We evaluate our model on a real-world dataset and compare the prediction performance with two state of the art online video popularity prediction models.

4. CONCLUSIONS

In this system, we firstly carried out a detailed characterization study of the video popularity dynamics, based on the dataset. We found the distribution of long-term group popularity was quite uneven and could be fitted by a Pareto Type 2 distribution. We analyzed the distribution of video lifetime in our dataset, and found differences between the videos with different popularity. We then revealed how the popularity of an individual video evolved over time, considering the number and temporal locations of popularity bursts. At last, we studied the linear correlation between the early view count and the long-term view count. We found the relationship was greatly impacted by the popularity evolution pattern. Inspired by the characterization results, we proposed a multivariate linear regression model to predict the video popularity based on early popularity evolution patterns and future popularity burst predictions.

5. REFERENCES

- [1] Y. Zhou, L. Chen, C. Yang, and D. M. Chiu, "Video popularity dynamics and its implication for replication". *IEEE Trans. Multimedia* vol. 17, no. 8, pp. 1273–1285, Aug. 2015.
- [2] Cisco Visual Networking Index: Forecast and Methodology, 2014–2019 White Paper. [Online]. Available: <http://www.cisco.com/us/solutions/collateral/service-provider/ip-ngn/ip-next-generation-network-white-paper/c11-481360.html>.
- [3] F. Figueiredo, J. M. Almeida, M. A. Gonçalves, and F. Benevenuto, "On the dynamics of social media popularity: A YouTube case study". *ACM Trans. Internet Technology*, vol. 14, no. 4, 2014, Art. no. 24.
- [4] F. Figueiredo, "On the prediction of popularity of trends and hits for user generated videos". *ACM Int. Conf. Web Search Data Mining*, 2013, pp. 741–746.
- [5] J. Yang and J. Leskovec, "Patterns of temporal variation in online media". In *Proc. 4th ACM Int. Conf. Web Search Data Mining*, 2011, pp. 177–186.

- [6] F. Figueiredo, F. Benevenuto, and J. M. Almeida, "The tube over time: Characterizing popularity growth of YouTube videos," in *Proc. 4th ACM Int. Conf. Web Search Data Mining, 2011*, pp. 745–754.
- [7] G. Chatzopoulou, C. Sheng, and M. Faloutsos, "A first step towards understanding popularity in YouTube," in *Proc. IEEE Conf. Comput. Commun Workshop, Mar. 2010*, pp. 16.
- [8] M. Cha, H. Kwak, P. Rodriguez, Y.-Y. Ahn, and S. Moon, "Analyzing the video popularity characteristics of large-scale user generated content systems". *IEEE/ACM Trans. Netw.*, vol. 17, no. 5, pp. 1357–1370, Oct. 2009.
- [9] R. Crane and D. Sornette, "Robust dynamic classes revealed by measuring the response function of a social system," *Proc. Nat. Acad. Sci. USA*, vol. 105, no. 41, pp. 15649–15653, 2008.

