OPEN ACCESS INTERNATIONAL JOURNAL OF SCIENCE & ENGINEERING

SURVEY ON A TEMPORAL MODEL FOR TOPIC RE-HOTTING PREDICTION IN ONLINE SOCIAL NETWORKS

Miss. Megha P. Nagawade[1], Prof. Vandana V. Navale[2]

PG Students Department of Computer Engineering, Dhole Patil College of Engineering, Wagholi, Near Eon IT park., Pune-412207, Maharashtra, India[1]

Assistant Professor, Department of Computer Engineering, Dhole Patil College of Engineering, Wagholi, Near Eon IT park., Pune-412207, Maharashtra, India[2]

Abstract: **It is extremely well known to identify hot topics, which can profit numerous undertakings including topic recommendations, the guidance of public opinions, etc. However, in some cases, people may want to know when to re-hot a topic, i.e., make the topic popular once more. In this project, address this issue by presenting a Spatio-Temporal User Topic Participation (UTP) model which models users behaviors of posting messages. The UTP demonstrate considers clients' interests, friend-circles, and unexpected events in online social networks. Likewise, it considers the persistent spatio-temporal modeling of topics, since subjects are changing consistently after some time. Moreover, a weighting plan is proposed to smooth the variances in topic re-hotting prediction. At long last, trial results directed on true informational collections exhibit the effectiveness of our proposed models and topic re-hotting prediction techniques.**

Keywords: Social Networks, User Topic Participation (UTP), Re-hotting Prediction, Spatio-Temporal Model.

I INTRODUCTION

In this paper there is rapid development of data storage, information processing, and networking transmission technologies, online social networks (OSNs) have been becoming indispensable in people's daily life. Everyone could freely post messages, share news, and participate in topic discussions in OSNs, e.g., Twitter (twitter.com) and Weibo (weibo.com). Along with that, many researchers have done lots of work for the convenience to analyze and use OSNs, such as topic detection, topic prediction, and topic transition. However, the phenomena of topic decay and even disappearance are inevitable. It is reported that 23% of topics have two or more hot (a.k.a. active or popular) periods. Clearly, in many situations, after observing that a hot topic is dwindling, it is very interesting but challenging to intelligently extrapolate when this topic may be re-hot, i.e., make the topic hot again at suitable time points. It is called the problem of topic re-hotting prediction in this study, and has a lot of practical applications. This framework present and formalize the issue of theme re-hotting forecast (TRP) in OSNs. It facilitates a better understanding of the topic characteristics when the focusing topics are dwindling, as well as benefits many related issues, such as topic tracing and topic detection. This system can effectively explain users behaviors of participating in the topic discussions in OSNs.

II LITERATURE SURVEY

In this paper[1], A new approach to detect burst novel events and predict their future popularity simultaneously. Specifically, it first detect events from online microblogging stream by utilizing multiple types of information, i.e., term frequency, and user's social relation. Meanwhile, the popularity of detected event is predicted through a presented diffusion model which takes both the content and user information of the event in to account. Extensive evaluations on two real-world datasets demonstrate the effectiveness of this approach on both event detection and their popularity prediction.

In this paper, author Suggest applying TMLDA to other datasets and domains. One such natural application, to be explored in future work, is modeling topic transitions within threads on Community Questions Answering forums or social comment streams, to better analyze the evolution of the discussions and to identify valuable contributions. Additionally, TM-LDA provides a general framework of modeling topic transitions that could be applied to other probabilistic topic modeling algorithms, such as probabilistic Latent Semantic Analysis (pLSA)and author-topic models such as. Together, TM-LDA and the associated algorithms provide a valuable tool to improve upon and complement previous approaches to mining social media data[2].

Author introduces [3], an arrangement based methodology for burst time forecast by using and displaying rich learning in data dispersion. Especially, Creators initially propose a period window based way to deal with foresee in which time window the burst will show up. This prepares to change the time forecast errand to an order issue. To address the test that the unique time arrangement information of the course notoriety just are not adequate for anticipating falls with various sizes and time ranges, it investigate rich data dispersion related information and model them in a scale-autonomous way. Broad tests on a Sina Weibo reposting dataset illustrate the predominant execution of the proposed methodology in this paper precisely foreseeing the burst time of posts.

Author proposed [4], The issue of bunching loose information utilizing a limited blend of Gaussians. They propose to gauge the parameters of the display utilizing the fluffy EM calculation. This augmentation of the EM calculation enables them to deal with uncertain information spoken to by fluffy numbers. To start with, creators quickly review the standard of the fluffy EM calculation. At that point, they give shut structures for the parameter evaluates on account of Gaussian fluffy information. Creators likewise depict a Monte-Carlo system for evaluating the parameter refreshes in the general case. Investigations did on manufactured and genuine information exhibit the enthusiasm of this methodology for considering quality and name vulnerability.

This paper presents [5], Creators develop a huge human portability database (GPS records of 1.6 million clients more than one year) and a few distinctive datasets to catch furthermore, break down human crisis conduct and their portability following the Great East Japan Earthquake and Fukushima atomic mishap. In light of this exact examination through these information, creators locate that human conduct and their portability following extensive scale catastrophe here and there connect with their versatility designs amid typical occasions, and are additionally very affected by their social relationship, force of fiasco, harm level, government selected covers, news announcing, expansive populace stream and so on. Based on these discoveries, Authors build up a model of human conduct that considers these elements for precisely anticipating human crisis conduct and their versatility following vast scale debacle. The trial results and approvals exhibit the effectiveness of this conduct show, and propose that human conduct and their developments amid catastrophes might be altogether more unsurprising than already thought.

III PROBLEM DEFINATION

In this paper developed a system to detect hot topics, which can benefit many tasks including topic recommendations, the guidance of public opinions, and so on.

IV WORK OF REHOTTING SYSTEM

The propose system formalize the problem of topic re-hotting prediction (TRP) in OSNs. It facilitates a better understanding of the topic characteristics when the focusing topics are dwindling, as well as benefits many related issues, such as topic detection and topic tracing. The propose a novel temporal model, i.e., User Topic Participation (UTP) model, for the TRP problem. UTP can effectively explain users behaviors of participating in the topic discussions in OSNs. Also, The improved algorithms like Re-hot Topic Prediction and Topic Mining within Region and Time Interval to effectively infer the UTP model. The proposed design method based on the UTP model to appropriately predict the re-hotting time points for given once-hot topics, i.e., the topics which had been hot before.

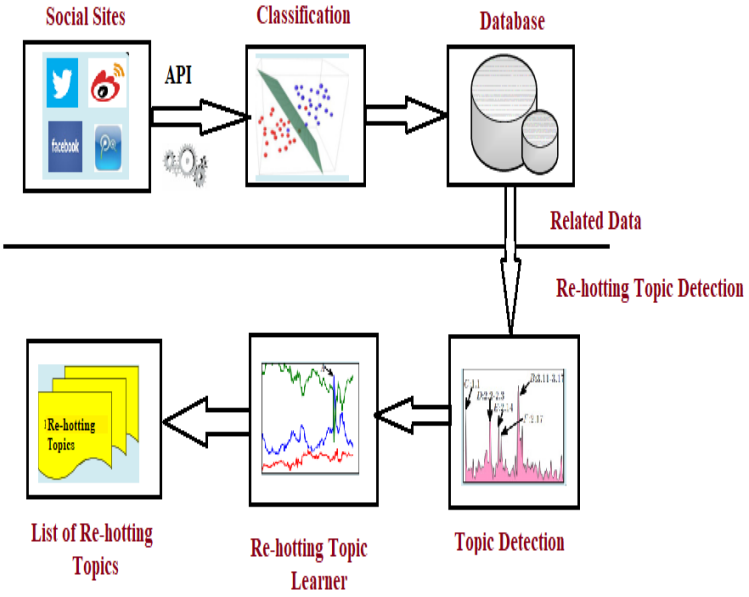

Figure 1. System architecture

V CONCLUSION

In proposed system is to solve the challenging problem of topic re-hotting prediction in OSNs. By taking into account three factors, i.e., users' friend-circles, types of topics, and unexpected events, this system combines users interests and unexpected events. Furthermore, it use re-hot topic prediction algorithm for model inference and a Topic Mining within Region and Time Interval prediction method to predict the re-hotting time points accurately. Moreover, in order to reduce the influence of slight fluctuations of topics, a weighting scheme is proposed. Finally, demonstrate the performance of the proposed methods on real-world data sets, and analyse the interesting phenomena which appear in our experiments.

VI ACKNOWLEDGEMENT

It is pleasure for me to thank lot of people who have support me in completing to this paper in different ways. Starting with, I would like to thank my Guide, **Prof. Vandana Navale** for her support during the entire work. Her support for helping me to get helpful content in the topic. I am thankful to HOD, Principal, teachers and collage to providing us the facilities in the department and their guidance.

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