



Role of social media as time variant in health monitoring system

¹.P.Lakshmi Durga,². V.Aditya Ramalingeswara Rao

¹.Final year student, Dept. of MCA, Ideal college of arts and science , kakinada, AP, India

².Asst professor, Dept. of MCA, Ideal college of arts and science , kakinada, AP, India

ABSTRACT:

Early monitoring of health information is corresponding to post-factum examines and empowers a scope of applications, for example, estimating social hazard factors and activating health efforts. We detail two issues: health progress location and health change peptation. We initially propose the Temporal Ailment Topic Aspect Model (TM-ATAM), another inactive model devoted to taking care of the primary issue by catching advances that include health related points. TM- ATAM is a non-evident expansion to ATAM that was intended to remove health related themes. It learns health related subject advances by limiting the expectation mistake on theme disseminations between back to back posts at various time and geographic granularities. To tackle the second issue, we create T- ATAM, a Temporal Ailment Topic Aspect Model where time is treated as an arbitrary variable locally inside ATAM.

KEYWORDS: Weight judgment, Intelligent decision, informationset.

1] INTRODUCTION:

Social media life has turned into a noteworthy wellspring of information for dissecting all parts of day by day life. Specifically, Twitter is utilized for general health checking to extricate early markers of the prosperity of populaces in various geographic districts. Twitter has turned into a noteworthy wellspring of information for early monitoring and forecast in regions, for example, health [1], catastrophe the executives [2] and governmental issues [3]. In the health space, the capacity to display changes for diseases and recognize explanations like "individuals talk about smoking and cigarettes before discussing respiratory issues", or "individuals talk about migraines and stomach throb in any request", benefits syndromic reconnaissance and helps measure conduct riskfactors and trigger general health efforts. In this project, we plan two issues: the health progress location issue and the health change forecast issue. To address the discovery issue, we create TM-ATAM that models fleeting changes of health related

subjects. To address the forecast issue, we propose T- ATAM, a novel strategy which reveals inactive disease inside tweets by regarding time as an irregular variable locally inside ATAM[4]. Regarding time as an arbitrary variable is critical to foreseeing the unobtrusive change in health related talk on Twitter.

2] LITERATURE SURVEY:

[1] U. Pavalana than we propose full of feeling, subjective, social, and etymological style measures, attracting from writing brain science. We see that psychological well-being talk from disposables is significantly disinhibiting and shows expanded antagonism, subjective inclination and self-attentional center, and brought down confidence. Disposables likewise appear to be multiple times progressively common as a personality decision on psychological well-being discussions, contrasted with other reddit networks.

We examine the ramifications of our work in directing psychological well-being intercessions, and in the plan of online networks that can all the more likely take into account the necessities of helpless populaces. We close with considerations on the job of character appearance via web-media networking media in conduct treatment.

[2] L. Hongwe address the issue of displaying content streams from two news sources - Twitter and Yahoo! News. Our examination tends to both their individual properties (counting fleeting elements) and their between connections. This work expands standard point models by permitting every content stream to have both nearby subjects and shared themes. For worldly demonstrating we partner every point with a period subordinate capacity that describes its notoriety after some time.

By coordinating the two models, we successfully display the fleeting elements of numerous corresponded content streams in a brought together system. We assess our model on a huge scale information set, comprising of content streams from

both Twitter and news channels from Yahoo! News. Other than conquering the restrictions of existing models, we demonstrate that our work accomplishes better perplexity on inconspicuous information and recognizes progressively rational subjects. We additionally give examination of discovering true occasions from the subjects acquired by our model.

3] PROBLEM DEFINITION:

In the existing system, the creators propose a technique that masters changing word circulations of themes after some time and in the system, the creators influence the structure of an informal organization to figure out how points transiently advance in a network. TM- ATAM and T- ATAM are anyway not quite the same as powerful theme models, for example, [9] and [10], and from crafted by Wang et al. [11], as they are intended to take in point progress designs from transiently requested posts, while dynamic subject models center around changing word dispersions of themes after some time.

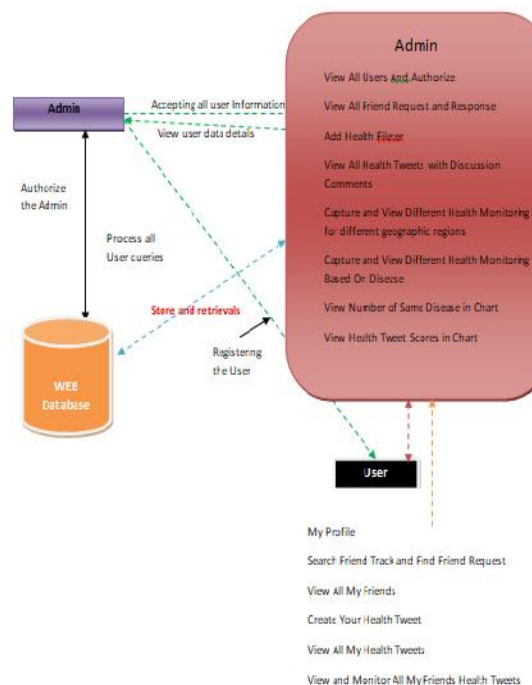
TM- ATAM learns change parameters that manage the advancement of health related subjects by limiting the forecast blunder on illness disseminations of continuous periods at various transient and geographic granularities. T- ATAM then again finds dormant illnesses in health tweets by regarding time as a corpus-explicit multinomial conveyance.

4] PROPOSED APPROACH:

In the proposed system, the system defines and takes care of two issues: the health change recognition issue and the health progress forecast issue. To address the recognition issue, the system creates TM- ATAM that models transient advances of health related themes. To address the forecast issue, we propose T- ATAM, a novel strategy which reveals idle illness inside tweets by regarding time as an arbitrary variable locally inside ATAM.

Regarding time as an arbitrary variable is vital to foreseeing the unpretentious change in health related talk on Twitter.

5] SYSTEM ARCHITECTURE:



6] PROPOSED METHODOLOGY:

Admin

The Admin needs to login by utilizing substantial User name and password. After login fruitful he can play out certain activities, for example, View All Users And Authorize, View All Friend Request and Response, Add Health Filter, View All Health Tweets with Discussion Comments, Capture and View Different Health Monitoring for various geographic areas, Capture and View Different Health Monitoring Media On Disease, View Number of Same Disease in Chart, View Health Tweet Scores in Chart

Friend Request & Response

The Admin can see all the Friend solicitations and reactions. Here every one of the solicitations and reactions will be shown with their labels, for example, Id, mentioned User photograph, mentioned User name, User name solicitation to, status and time and date. On the off chance that the User acknowledges the solicitation, at that point the status will be changed to acknowledged or else the status will stay as pausing.

User

There are n quantities of Users are available. User should enroll before playing out any activities. When User enrolls, their subtleties will be put away to the information base. After enrollment fruitful, he needs

to login by utilizing approved User name and secret phrase. Confirm unique finger impression and Login Once Login is fruitful User can play out certain activities like My Profile, Search Friend Track and Find Friend Request, View All My Friends, Create Your Health Tweet, View All My Health Tweets, View and Monitor All My Friends Health Tweets.

Searching Users to make friends

The User looks for Users in Same Network and in the Networks and sends Friend solicitations to them. The User can look for Users in different Networks to make Friends just in the event that they have authorization.

ALGORITHM:

Temporal Aliment topic Aspect Model

Step1:extraction of geographic coordinates and timestamp, for each post.

Step2:extract set of posts in P that originate from a region.

Step3: set of all documents corresponding to the aggregation of tweets from region g for different time periods.

Step4: For each document, these health-related words are considered to correspond to a unique ailment such as obesity, in somnia or “injuries.

Step5: The word can then be drawn from a vocabulary distribution common to the whole corpus or generated from an underlying Dirichlet distribution topic.

Step6: the timestamp t of each tweet is considered as a random variable, depending on the ailment associated to the post.

Resulting tweets were given to an SVM classifier **Step7:** with linear kernel and uni-gram, bi-gram and tri-gram word features.

Step8:matrix M produced by TM-ATAM, shows the degree that health topic will contribute to health topic.

8] RESULTS:

View and Monitor All Users Health Tweets and its Discussion

View and Monitor All Users Health Tweets and Its Discussion...

| Created User | Tweet Image | Tweet Name | Description | Created Date and Time | View Discussion Comments |
|--------------|--|----------------|---|-----------------------|--------------------------|
| Kamal |  | Smoking | My Smoking is a hard habit to break because tobacco contains nicotine, which is highly addictive. | 12/11/2018 17:46:30 | View |
| Mohan |  | Blood_Pressure | My BP is some time more than 140 and less than 160 which is called Hypertension. | 13/11/2018 13:29:23 | View |
| Eaksh |  | Blood_Pressure | My Ep is very low some times. | 13/11/2018 14:57:20 | View |

View All My Health Tweets

View All My Health Tweets...

| Tweet Image | Tweet Name | Description | Created Date & Time | Comments |
|---|------------|--|---------------------|-------------------------------|
|  | Kamal | Smoking is a hard habit to break because tobacco contains nicotine, which is highly addictive. | 12/11/2018 17:46:30 | View Comments |

Sidebar Menu

9] CONCLUSION:

We create strategies to reveal infirmities after some time from Social media life. We figured health change discovery and expectation issues and proposed two models to unravel them. Discovery is tended to with TM- ATAM, a granularity-media model to direct locale explicit examination that prompts the distinguishing proof of timespans and portraying homogeneous ailment talk, per area. Expectation is tended to with T- ATAM, that treats time locally as an arbitrary variable whose qualities are drawn from a multinomial appropriation. The fine-grained nature of T- ATAM results irrelevant enhancements in demonstrating and anticipating advances of health related tweets.

10] REFERENCES:

[1] L. Manikonda and M. D. Choudhury, “Modeling and understanding visual attributes of mental health disclosures in social media,” in Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, Denver, CO, USA, May 06-11, 2017., 2017, pp.170–181.

[2] S. R. Chowdhury, M. Imran, M. R. Asghar, S. Amer-Yahia, and C. Castillo, “Tweet4act: Using incident-specific profiles for classifying crisis-related messages,” in 10th Proceedings of the International Conference on Information Systems for Crisis Response and Management, Baden-Baden, Germany, May 12-15, 2013., 2013.

[3] T. Davidson, D. Warmlesley, M. W. Macy, and I. Weber, "Automated hate speech detection and the problem of offensive language," in Proceedings of the Eleventh International Conference on Web and Social Media, ICWSM 2017, Montréal, Québec, Canada, May 15-18, 2017.,2017, pp. 512–515.

[4] M. J. Paul and M. Dredze, "You Are What You Tweet: Analyzing Twitter for Public Health," in ICWSM'11, 2011.

[5] T. Hofmann, "Probabilistic Latent Semantic Indexing," in SIGIR'99, 1999, pp. 50–57.

[6] D. M. Blei, A. Y. Ng, and M. I. Jordan, "Latent Dirichlet Allocation," *Journal of Machine Learning*, vol. 3, pp. 993–1022, 2003.

[7] Y. Wang, E. Agichtein, and M. Benzi, "TM-LDA: Efficient Online Modeling of Latent Topic Transitions in Social Media," in KDD'12,2012, pp. 123–131.

[8] S. Sidana, S. Mishra, S. Amer-Yahia, M. Clausel, and M. Amini, "Health monitoring on social media over time," in Proceedings of the 39th International ACM SIGIR conference on Research and Development in Information Retrieval, SIGIR 2016, Pisa, Italy, July17-21, 2016, 2016, pp. 849–852.

[9] D. M. Blei and J. D. Lafferty, "Dynamic Topic Models," in ICML'06,2006, pp. 113–120.

[10] C. X. Lin, Q. Mei, J. Han, Y. Jiang, and M. Danilevsky, "The Joint Inference of Communities," in ICDM'11, 2011, pp. 378–387.

[11] X. Wang and A. McCallum, "Topics Over Time: A Non-Markov Continuous-time Model of Topical Trends," in KDD'06, 2006, pp.424–433.

[12] K. W. Prier, M. S. Smith, C. Giraud-Carrier, and C. L. Hanson, "Identifying Health-related Topics On Twitter," in Social computing, behavioral-cultural modeling and prediction. Springer, 2011, pp.18–25.

[13] C. Cortes and V. Vapnik, "Support-vector networks," *Machine Learning*, vol. 20, no. 3, pp. 273–297, 1995. [Online]. Available:

<http://dx.doi.org/10.1007/BF00994018>

[14] M. De Choudhury, "Anorexia on Tumblr: A Characterization Study," in DH'15, 2015, pp. 43–50.

[15] M. De Choudhury, A. Monroy-Hernández, and G. Mark, "'narco' Emotions: Affect and Desensitization in Social Media During the Mexican Drug War," in CHI'14, 2014, pp. 3563–3572

Miss. Pasupuleti Lakshmi Durga is a student P.G Department of computer science in ideal college of arts and science, Kakinada. Presently she is in final year master computer applications (MCA)/Master of science (computer science) in this college and affiliated to Adikavi Nannaya University, Rajamahendravaram, Andhra Pradesh. She received her b.sc (cs) from minerva degree college, prathipadu in the year 2014-2015. Her areas of interest includes Data Mining and Web Designing, all current trends and techniques in computer science.



Mr. Aditya Ramalingeswara Rao is presently working as assistant professor in P.G. Department of Computer Science, ideal college of arts & science ,Kakinada. He obtained his M.SC (CS) from Andhra University and M.Tech (CSE) from Acharya University. He has 15+ years of teaching experience at both Graduate and post Graduate levels. His areas of interests include computer Graphics, web Technologies, Software Engineering, Data base management system, Operating Systems and Artificial Intelligence etc.