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AI POWERED E-LEARNING VIDEO SUMMARIZER

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ABSTRACT

Microblogging offerings have revolutionized the way human beings trade facts. Confronted with the ever-growing numbers of microblogs with multimedia contents and trending topics, it's far proper to offer visualized summarization to assist users to quickly hold close the essence of topics. While existing works normally attention on text-based strategies best, summarization of a couple of media sorts (e.g., text and image) are scarcely explored. In proposed approach a multimedia microblog summarization framework to automatically generate visualized summaries for trending topics. Specifically, a novel generative probabilistic model, termed multimodal-LDA (MMLDA), is proposed to find subtopics from microblogs by means of exploring the correlations amongst different media kinds based on the records accomplished from MMLDA, a multimedia summarizer is designed to one by one pick out representative textual and visual samples and then form a complete visualized summary.

KEYWORDS: Microblog, Summarization, Trending Topic, Social Media, MMLDA.

I. INTRODUCTION

Users are allowed to share multimedia content on such platforms, such as news, images and video links. With the wide availability of information sources, rapid information propagation and ease of use, microblogging has quickly become one of the most important media for sharing, distributing and consuming interesting contents, such as the trending topics. Currently, some microblogging platforms, such as Twitter, offer users the list of (manually

created) hot trending topics, together with a set of related microblogs in each trend. Such service offers a potentially useful way to help users to conveniently gain a quick and concise impression of the current hot topics. In addition, users may obtain further understanding of the topics by browsing the related mircoblogs. However, due to the tremendous volume of microblogs and the lack of effective summarization mechanism in existing trending topic services, users are often confronted with incomplete, irrelevant and duplicate information, which makes it difficult for users to capture the essence of a topic. Therefore, it would be of great benefit if an effective mechanism can be provided to automatically mine and summarize subtopics (i.e., divisions of a main topic) from microblogs related to a given topic.

II. RELATED WORK

P. Sinha, et al [1] Proposed methods to compute quality, diversity and coverage properties using multidimensional content and context data. The proposed metrics which will evaluate the photo summaries based on their representation of the larger corpus and the ability to satisfy user's information needs. Advantages are: The greedy algorithm for summarization performs better than the baselines. Summaries help in effective sharing and browsing of the personal photos. Disadvantages are: Computation is expensive.

H. Lin et al [2]in multi-document summarization, redundancy is a particularly important issue since textual units from different documents might convey the same information. A high quality (small and meaningful) summary should not only be informative about the remainder but also be compact (non-redundant). Advantages are: The best performance is achieved. Submodular summarization achieves better ROUGE-1 scores. Disadvantages are: The proposed system very expensive to solve.

M. S. Bernstein et al [3] Eddi is a novel interface for browsing Twitter streams that clusters tweets by topics trending within the user's own feed. An algorithm for topic detection and a topic-oriented user interface for social information streams such as Twitter feeds. (1) benchmarkTweeTopic against other topic detection approaches, and (2) compare Eddi to a typical chronological interface for consuming Twitter feeds.Advantages are: A simple, novel topic detection algorithm that uses noun-phrase detection and a search engine as an external knowledge base.Eddi is more enjoyable and more efficient to browse than the traditional chronological Twitter interface.Disadvantages are: Users had access to our clients for a limited time, making it difficult to extrapolate conclusions on how the tool might be used longitudinally.Users were viewing the history of their feed rather than tweets they had never

seen before, making our task slightly less realistic.

P. Goyal et al [4] proposes the novel idea of using the context sensitive document indexing to improve the sentence extraction-based document summarization task. In this paper, proposes a context sensitive document indexing model based on the Bernoulli model of randomness.Advantages are: The new context-based word indexing gives better performance than the baseline models.Disadvantages are: Need to calculate the lexical association over a large corpus.

D. Chakrabartiet al [5]in this paper we argue that for some highly structured and recurring events, such as sports, it is better to use more sophisticated techniques to summarize the relevant tweets. The problem of summarizing event-tweets and give a solution based on learning the underlying hidden state representation of the event via Hidden Markov Models.Advantages are: The advantage of leveraging existing query matching technologies and for simple one-shot events such as earthquakes it works well.The HMM is able to learn differences in language models of sub-events completely automatically.Disadvantages are: The disadvantage that SUMMHMM has to account for tweet words that only occur in some of the events, but not in others.

J. Bian et al [6] the paper proposes a multimedia social occasion summarization framework to automatically generate visualized summaries from the microblog circulation of multiple media kinds. Specifically, the proposed framework contains three ranges: 1) A noise removal approach is first devised to cast off probably noisy pictures. 2) A novel move-media probabilistic version, termed Cross-Media-LDA (CMLDA), is proposed to together find out subevents from microblogs of more than one media sorts. 3) Finally, based at the move-media know-how of all of the observed subevents. Advantages are: Eliminates the doubtlessly noisy pics from raw microblog photograph collection. Generate the multimedia summary for social activities utilising the go-media distribution information of all the located subevents. Disadvantages are: Need to extend the pass-media framework for routinely detecting social occasions and retrieving related candidate microblogs. Need to personalised microblog summarization based totally on person profile.

Z. Li et al [7] inpaper, proposes a singular Robust Structured Subspace Learning (RSSL) algorithm with the aid of integrating image knowledge and function gaining knowledge of into a joint studying framework. The learned subspace is accompanied as an intermediate

area to reduce the semantic hollow between the low-degree seen capabilities and the high-stage semantics. Advantages are: The proposed RSSL enables to effectively research a robust based subspace from records. The proposed framework can reduce the noise-prompted uncertainty.

W. Y. Wang et al [8] the paper proposes a singular matrix factorization technique for extractive summarization, leveraging the success of collaborative filtering. First to consider illustration learning of a joint embedding for textual content and snap shots in timeline summarization. Advantages are: It is straightforward for builders to set up the device in real-world packages. Scalable method for studying low-dimensional embedding's of information tales and snap shots. Disadvantages are: Only work on summarizing synchronous multi-modal content.

Z. Li, et al [9] In paper, expand a novel method of multimedia news summarization for looking consequences on the Internet, which uncovers the underlying subjects among question-associated news information and threads the news occasions inner every topic to generate a query-related brief evaluate. HLDA is adopted to find out the hierarchical subject matter shape from the question-related information articles, and an approach based totally on the weighted aggregation and max pooling to identify the typical news article for each subject matter is proposed. A time-bias MST technique is evolved to thread the subtopics inside one topic to give a news precis on every subject matter in phrases of temporal and spatial improvement. Advantages are: Proposed gadget can gift shiny and complete data without problems. Readers can fast recognize the information that they require thru the multimedia summarization in this system.

P. Li, et al [10] In paper, take a look at the hassle of learning to summarize pix via textual content and visualize text utilizing pics, that is known as Mutual-Summarization. Thus separates the web image-text statistics space into 3 subspaces, namely pure photo area (PIS), natural textual content area (PTS) and photograph-text joint space (ITJS). Advantages are: In photograph summarization method, map photos from PIS to ITJS via picture class model and describe these snap shots making use of several excessive stage semantic sentences. In textual content visualization system, map text from PTS to ITJS thru text categorization version and then provide a visual show utilizing photographs with high confidences in ITJS. Disadvantages are: Need to improve the Mutual-Summarization overall performance.

III. OPEN ISSUES

Text summarization is performed for the purposes of saving users time by reducing the amount of content to read. However, text summarization has also been performed for purposes such as reducing the number of features required for classifying or clustering documents. Some microblogging platforms offer users the list of (manually created) hot trending topics, together with a set of related microblogs in each trend. Such service offers a potentially useful way to help users to conveniently gain a quick and concise impression of the current hot topics. In addition, users may obtain further understanding of the topics by browsing the related mircoblogs. However, due to the tremendous volume of microblogs and the lack of effective summarization mechanism in existing trending topic services, users are often confronted with incomplete, irrelevant and duplicate information, which makes it,difficult for users to capture the essence of a topic. Some of the issues are given below:

- The lack of effective summarization mechanism.
- Users are often faces with incomplete, irrelevant and duplicate information due to existing trending topics services.
- It makes difficult for users to capture the essence of a topic.

IV. CONCLUSION

In this paper, proposed a multimedia microblog summarization method to automatically generate visualized summaries for trending topics. Microblogs comprise of multiple media types, such as image and text. Specifically, a novel multimodal-LDA (MMLDA) model was proposed to discover various subtopics as well as the subtopic content distribution from microblogs, which explores the correlation among different media types. Based on MMLDA, a summarizer is elaborated to generate both textual and visual summaries. Well organizing the messy microblogs into structured subtopics. Generating high quality textual summary at subtopic level.

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