USER VITALITY RANKING AND PREDICTION IN SOCIAL NETWORKING SERVICES: A DYNAMIC NETWORK PERSPECTIVE
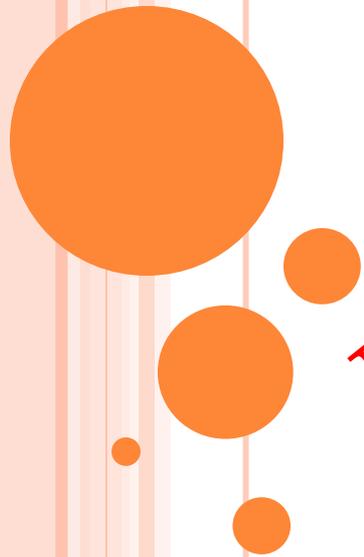
ABSTRACT

- Social networking services have been prevalent at many online communities such as twitter.com and weibo.com, where millions of users keep interacting with each other every day.

- One interesting and important problem in the social networking services is to rank users based on their vitality in a timely fashion.

- An accurate ranking list of user vitality could benefit many parties in social network services such as the ads providers and site operators.

- Although it is very promising to obtain a vitality-based ranking list of users, there are many technical challenges due to the large scale and dynamics of social networking data. In this paper,

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- We propose a unique perspective to achieve this goal, which is quantifying user vitality by analyzing the dynamic interactions among users on social networks. Examples of social network include but are not limited to social networks in micro blog sites and academicals collaboration networks.

- If a user has many interactions with his friends within a time period and most of his friends do not have many interactions with their friends simultaneously,

- Based on this idea, we develop quantitative measurements for user vitality and propose our first algorithm for ranking users based vitality. Also we further consider the mutual influence between users while computing the vitality measurements and propose the second ranking algorithm, which computes user vitality in an iterative way.

EXISTING SYSTEM

- The development of web technology, social networking service has been prevalent at many online platforms the social networking service facilitates the building of social networks or social relations among users who, for instance, share interest, activities, background and physical connections the social networks in many online sites evolve over time, the vitality of users may also change overtime.

- Thus efficient methods are needed to dynamicallythe social networks in many online sites

- Evolve over time, the vitality of users may also change over

- Time. Thus efficient methods are needed to dynamically

DISADAVANTAGE

- If a user has many interactions with his friends within a time period and most of his friends do not have many interactions with their friends simultaneously

- Other than user vitality ranking, we also introduce a vitality prediction problem,

PROPOSE SYSTEM

- In the literature, researchers have made some efforts on ranking users in social networking sites. For instance, in [19],a Twitter user ranking algorithm was proposed to identify authoritative users who often submit useful information.

- The proposed algorithm mainly works based on the user-tweet graph, rather than the user-user social graph.

- In [18], an extension of Page Rank algorithm named Twitter Rank was developed to rank Twitter users based on their influence.

- They first build topic-specific relationship network among users, then apply the Twitter Rank algorithm for ranking. In [7],a modified K-shell decomposition algorithm is developed to measure the user influence in Twitter.

ADVANTAGES

- It is very likely that this user has high vitality

- Although it is very promising to obtain a vitality-based ranking list of users, there are many technical challenges due to the large scale and dynamics of social networking data.

- In this section, we evaluate the performances of the activity ranking algorithms with two real-world data sets.

- We may generate a social network based on all activities happening within the time period.

SOFTWARE REQUIREMENT

- **HARDWARE REQUIREMENT:**
- System : Pentium IV 2.4 GHz.
- Hard Disk : 40 GB.
- Floppy Drive : 1.44 Mb.
- Monitor : 15 VGA Colour.
- Mouse : Sony.
- Ram : 512 Mb.

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- **SOFTWARE REQUIREMENT:**
- Operating system   :   Windows XP.
- Coding Language   :   ASP. Net with C#
- Data Base   :   SQL Server 2005.

CONCLUSION

- In this paper, we presented a study on user vitality ranking and prediction in social networking services such as microblog application.

- Specifically, we first introduced a user vitality ranking problem, which is based on dynamic interactions between users on social networks. To solve this problem, we developed two algorithms to rank users based on vitality.

- While the first algorithm works based on the developed two user vitality measurements, the second algorithm further takes into account the mutual influence among users while computing the vitality measurements.

- Then we presented a user vitality prediction problem and introduced a regression based method for the prediction task.