iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 4 **Issue:** XI **Month of publication:** November 2016

DOI:

Volume 4 Issue XI, November 2016
ISSN: 2321-9653

International Journal for Research in Applied Science & Engineering Technology (IJRASET)

Asymmetric Design for Viral Marketing in MSN

K. Srikar Reddy[1], B.Rajesh[2]
[1]M. Tech Student, CSE, SVS Group of Institutions, Warangal, TS
[2]Assist. Prof, CSE, SVS Group of Institutions, Warangal, TS

Abstract: Within this paper, we address the issue of determining a small amount of people through whom the data could be diffused towards the network when possible, known to because the diffusion minimization problem. The emerging of mobile social systems opens possibilities for viral marketing. However, before fully utilizing mobile social systems like a platform for viral marketing, many challenges need to be addressed. Diffusion minimization underneath the probabilistic diffusion model could be formulated being an uneven k-center problem that is NP-hard, and also the most widely known approximation formula for that uneven k-center problem has approximation ratio. The outcomes reveal that the city based formula has got the best performance both in synthetic systems and also the real trace in comparison to existing calculations, and also the distributed set-cover formula outperforms the approximation formula within the real trace when it comes to diffusion time. Clearly, the performance and also the time complexity from the approximation formula aren't satisfiable in large-scale mobile social systems. To cope with this issue, we advise a residential area based formula along with a distributed set-cover formula. The performance from the suggested calculations is evaluated by extensive experiments on synthetic systems along with a real trace. Diffusion minimization underneath the probabilistic diffusion model could be formulated being an uneven k-center problem that is NP-hard, and also the most widely known approximation formula for that uneven k-center problem has approximation ratio of log* n and time complexity.
Keywords: Information diffusion, mobile social networks, community structure.

I. INTRODUCTION

Because the essence of viral marketing programs is information diffusion from a small amount of people towards the entire network by "word-of-mouth", within this paper, we address the issue of determining a small amount of people through whom the data could be diffused towards the entire network when possible, known to because the diffusion minimization problem [1]. Nowadays, social systems happen to be evolving to online social systems for example Facebook, Twitter, and Google that link humans, computer systems and also the Internet, and knowledge distributing in social systems continues to be altered. Social networking plays a huge role for distributing information, idea and influence among its people. Additionally, using the proliferation of wise mobile products, for example smartphone and tablet, people can certainly use the internet using their mobile products, meanwhile increasingly more native mobile social systems happen to be produced like Foursquare, Instagram, and Path. Furthermore, Bluetooth and Wireless Direct extend communications between mobile products in the limitations of cellular infrastructure user mobility and social connectivity brings numerous ad-hoc communication possibilities. However, before fully utilizing mobile social networking like a platform for viral marketing, many challenges need to be addressed. Diffusion minimization is of course important to viral marketing programs [2]. For instance, the "word-of-mouth" advertisement ought to be disseminated towards the network when possible, and therefore it might be of great interest to a lot of companies in addition to people that are looking to improve brand awareness, or disseminate ads or innovative ideas through "word-of-mouth". For instance, a business wants to rapidly enhance the understanding of something new inside a network. The organization initially gives free product samples from the product to a small amount of people within the network. The organization hopes the initially selected customers will spread the data from the cool product for their buddies, as well as their buddies will propagate the data for their friends' buddies and so forth. Diffusion minimization underneath the probabilistic diffusion model could be formulated being an uneven k-center problem that is NP-hard, and also the most widely known approximation formula for that uneven k-center problem has approximation ratio of log* n and time complexity [3]. Clearly, the performance and also the time complexity from the approximation formula aren't satisfiable in large-scale social systems. To cope with this issue, we design a residential area based formula with better performance and fewer time complexity. Not the same as existing approximation calculations, the city based formula, in the social perspective, leverages the city structure to resolve the diffusion minimization problem, thinking about the qualities of towns that information could be rapidly spread inside a community and knowledge diffusion in one community to a different is a lot reduced. The performance of those calculations is evaluated according to both synthetic systems produced with a well-known benchmark along with a real trace.

Volume 4 Issue XI, November 2016
ISSN: 2321-9653
International Journal for Research in Applied Science & Engineering Technology (IJRASET)

Simulation results reveal that the city based formula has got the best performance both in synthetic systems and real trace, and also the distributed set-cover formula outperforms the approximation formula within the real trace when it comes to diffusion time. The main contributions of the paper are summarized the following. Because of insufficient global information and the necessity to handle the dynamic evolving of targeted systems, we further propose a distributed set-cover formula, where each node collects social contact details by probing messages inside a distributed way. We design a residential area based formula, which views both non-overlapping and overlapping community structure, to resolve the diffusion minimization problem. We further propose a distributed set-cover formula, including two phases: finding the diffusion set and determining the k-node set, to resolve the issue. We advise the probabilistic information diffusion model and formulate the diffusion minimization condition in mobile social systems.

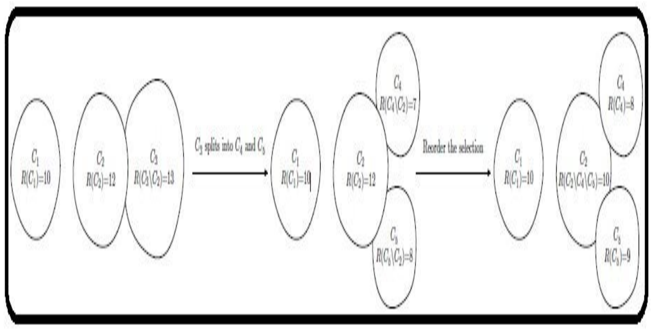


Fig.1. The selection of central nodes for overlapping community structure

II. PREVIOUS STUDY

Lately, lots of research efforts concentrate on whether and just how people influence one another. Domingo and Richardson were the first one to read the influence. Through mobile social systems, people concentrating on the same interests interact, communicate and fasten with other people by their mobile products for example smartphones, capsules, etc. Using the proliferation of smartphones, mobile social networking has become a brand new frontier in traveling with a laptop research, and a lot of studies have centered on mobile social systems. Mobile social networking is really a fertile ground for that rapid distributing of knowledge including text, photo, voice and video. This paper substantially stretches the preliminary form of our result made an appearance. We mainly focused regarding how to efficiently solve the diffusion minimization according to non-overlapping community structure [4]. Within this paper, we design a far more general formula which views both non-overlapping and overlapping community structure so we perform additional extensive simulations in synthetic systems with overlapping community structure. Furthermore, we redesign the distributed set-cover formula to prevent the deviousness of traveling pathways of probing messages and therefore enrich the up-to-date information collected by each node.

III. IMLEMENTATIONS

Active nodes would be the adopters from the information and will be ready to diffuse the data for their inactive neighbors. The condition of the node could be switched from inactive to active, although not the other way round. Within the operational type of information diffusion, each node could be either active or inactive. The transformative game theory based diffusion model is investigated. The data diffusion process can be defined as follows. First a preliminary group of active nodes is chosen. Once the contact happens between an energetic node as well as an inactive node, the inactive node comes into action having a probability. The procedure terminates when all of the nodes are active. The closeness of the node is understood to be the reciprocal of the sum least distances to any or all other nodes within the network. The approximation formula and also the community based formula are centralized and need global information from the network. However, similarly info may not be available or cost an excessive amount of in certain situations, for example mobile social systems built from opportunistic node contacts. In addition, systems might dynamically evolve with time and so the contact frequency between nodes varies with time that will modify the precision for calculating the pairwise expected diffusion some time and discovering the towns. Thinking about the style of information diffusion in mobile social systems, without effort, the idea of social relations ought to be used. We design the city based heuristic formula. Community signifies some nodes inside a network, where nodes within the community convey more internal connections than exterior connections. Community structure is really a prominent network property which supplies an obvious look at how nodes are

Volume 4 Issue XI, November 2016
ISSN: 2321-9653

organized and just how nodes connection with one another, particularly in social systems. For information diffusion in mobile social systems, towns possess the following qualities: Inside a community, nodes frequently contact one another and therefore information could be rapidly spread. Information diffusion in one community to a different community is a lot reduced in comparison to that particular within community. The fundamental concept of the city based formula would be to identify a minimum of one diffusion node from each community [5]. Prior to getting in to the particulars of merging towns, we first introduce two terms: central node and diffusion radius. For 2 rarely or not directly connected towns, the merged community may have an unpredicted large diffusion radius. In comparison, for 2 carefully connected towns, the diffusion radius from the merged community might be greater than the utmost of these two individual towns

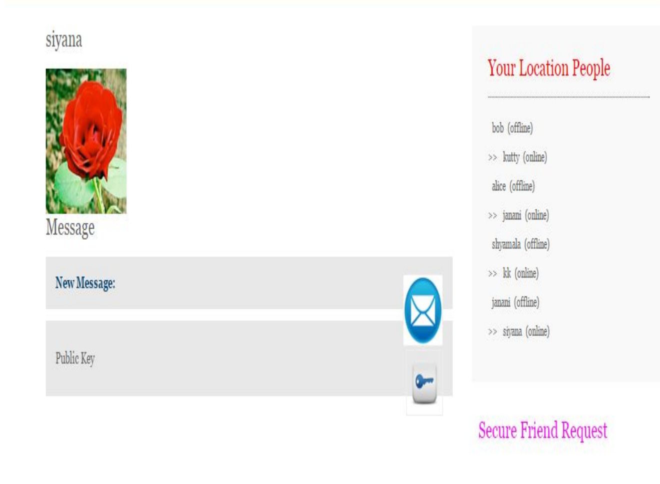


Fig2:Location Pepole

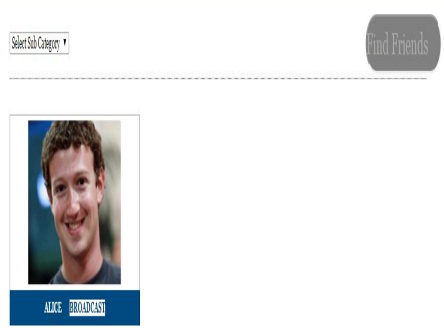


Fig:3 Find friends Screen

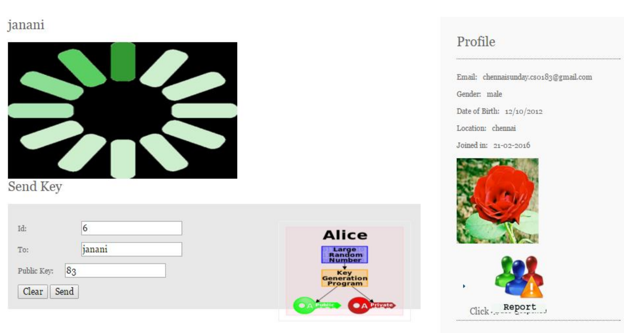
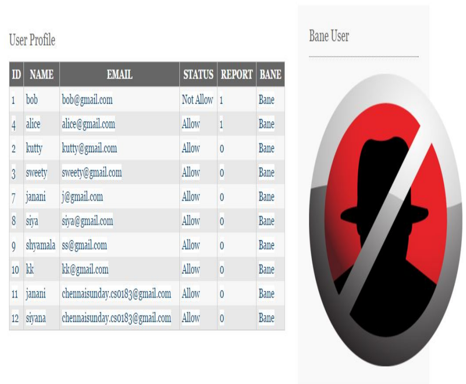


Fig4:Shows Security Keys structure

Volume 4 Issue XI, November 2016
ISSN: 2321-9653

International Journal for Research in Applied Science & Engineering Technology (IJRASET)



ID	NAME	EMAIL	STATUS	REPORT	BANE
1	bob	bob@gmail.com	Not Allow	1	Bane
4	alice	alice@gmail.com	Allow	1	Bane
2	kutty	kutty@gmail.com	Allow	0	Bane
3	sweety	sweety@gmail.com	Allow	0	Bane
7	janani	j@gmail.com	Allow	0	Bane
8	siya	siya@gmail.com	Allow	0	Bane
9	shyamala	ss@gmail.com	Allow	0	Bane
10	kk	kk@gmail.com	Allow	0	Bane
11	janani	chennaisunday.cs0183@gmail.com	Allow	0	Bane
12	siyana	chennaisunday.cs0183@gmail.com	Allow	0	Bane

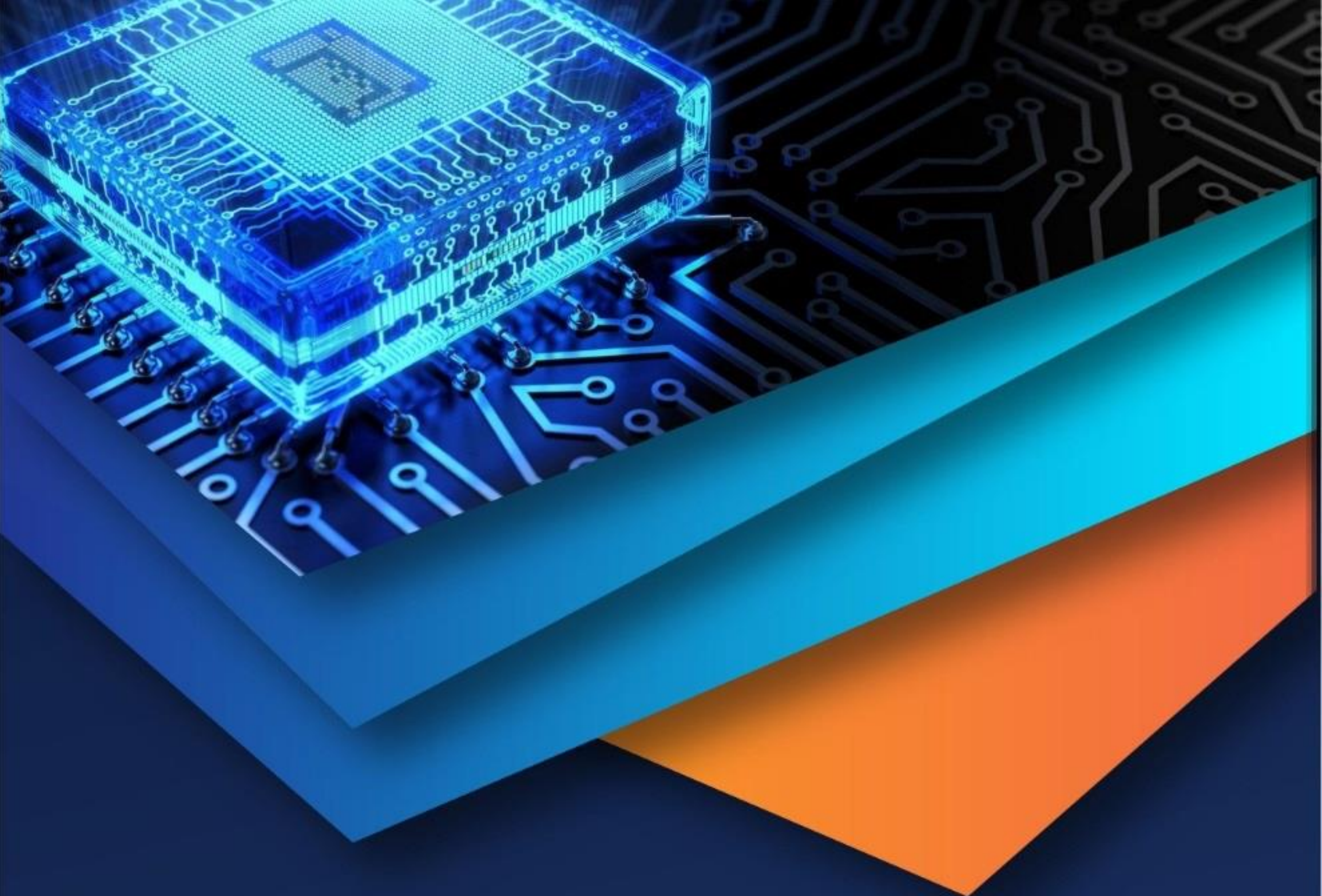
Fig 5:Users Profile Screen

IV. CONCLUSION

We suggested two calculations: the city based formula and also the distributed set-cover formula, to resolve the diffusion minimization condition in mobile social systems from various aspects. Diffusion minimization underneath the probabilistic diffusion model could be formulated being an uneven k-center problem that is NP-hard, and also the most widely known approximation formula for that uneven k-center problem has approximation ratio of log* n and time complexity. Within this paper, we addressed the issue of determining a small amount of nodes by which the data could be diffused towards the network when possible. Despite the possible lack of global information, the distributed set-cover formula outperforms the approximation formula within the Facebook trace when it comes to diffusion time. Particularly, the city-based formula, for that social perspective, leverages the city structure to pick diffusion nodes, as the distributed set-cover formula identifies diffusion nodes in line with the information collected by probing messages inside a distributed way. Simulation results reveal that the city based formula has got the best performance for synthetic systems and also the Facebook trace.

REFERENCES

[1] B. Liu, G. Cong, D. Xu, and Y. Zeng, "Time constrained influence maximization in social networks," in Proc. of IEEE ICDM, 2012.
[2] W. Peng, F. Li, X. Zou, and J. Wu, "A privacy-preserving social aware incentive system for word-of-mouth advertisement dissemination on smart mobile devices," in Proc. of IEEE SECON, 2012.
[3] X. Zhang and G. Cao, "Transient community detection and its application to data forwarding in delay tolerant networks," in Proc. of IEEE ICNP, 2013.
[4] D. Kempe, J. Kleinberg, and ´E. Tardos, "Maximizing the spread of influence through a social network," in Proc. of ACM SIGKDD, 2003.
[5] E. Miluzzo, N. D. Lane, K. Fodor, R. Peterson, H. Lu, M. Musolesi, S. B. Eisenman, X. Zheng, and A. T. Campbell, "Sensing meets mobile social networks: the design, implementation and evaluation of the cenceme application," in Proc. of ACM SenSys, 2008.



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY