

Fine Grained knowledge sharing in collaborative environment

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Abstract - : In area where it is common that members try to gain similar information on the web in order to gain specific knowledge in one domain sharing environment is needed. Like in collaborative environments, members may try to acquire similar information on the web in order to gain knowledge in one domain. For example, in a company several departments may successively need to buy same software and employees from these departments may have studied online about different tools and their features independently. It will be productive to get them connected and share learned knowledge. In this paper work search is done on fine-grained knowledge sharing in collaborative environments. In this methodology is proposed to analyze member's web surfing data to summarize the fine-grained knowledge acquired by them. Finally, the classic expert search method is applied to the mined results to find proper advisor for knowledge sharing.

Key Words: Fine-grained knowledge sharing, Advisor Search, Infinite Hidden Markov Model, Collaborative environment, nonparametric generative model.

1. INTRODUCTION

In a collaborative environment, users try to reach similar information on the web to gain particular knowledge in one domain. This gives a new method to identify, how to get such knowledge sharing mechanism by analyzing user's data. For example, Mark starts to surf the web and wants to study about a Java script program, which has already been studied by Ross. In this case, it would be better to consult Ross, rather than studying by himself. Such information is provided by analyzing surfing activities automatically. In this example, not necessarily Ross is an expert in all aspects of Java programming; however, due to his considerable surfing activities in Java script, it is practical to believe that he has gained enough knowledge in this area so that he can help Mark. This method comes from the customary expert search difficulty in that expert search goals to find domain

experts based on their related documents in an project storehouse, while the goal of this planned work is to find "advisors" who are most likely having the desired piece of fine-mined knowledge based on their web surfing activities. In order to examine the knowledge gained by web users, new method is proposed to monitor and study user's web surfing data. User's interactions with the web can be divided into different "tasks". Documentary contents of a task are usually structured. This paper defines a session as an summarization of consecutively surfed web contents of a user that belong to the same task. Sessions are minute units in our examination. A task can be further divided into fine-grained aspects (called micro-aspects). A micro-aspect could be subset of sessions in a task. For eg, the assignment "studying java language" might contain 'java script' and 'java wrapping'. To this end, a novel infinite Hidden Markov Model (iHMM) is proposed to mine micro-aspects in each task.

2 Literature Survey

1. T. S. Ferguson, "A Bayesian analysis of some nonparametric problems," We demonstrate the use of a deviation of the nonparametric Bayesian (NPB) forward-backward (FB) method for case state sequences of hidden Markov models, when the continuous-valued observations follow autoregressive (AR) processes. We show that by roughly integrating out some parameters of the model, one can ease this problem considerably.

Drawbacks-A Bayesian analysis approach is fruitful in many ways but it has rather been unsuccessful in terms of non-parametric problems.

2. H. Deng, I. King, and M. R. Lyu, "Formal models for expert finding." Finding relevant experts in a specific field is often crucial for, both in industry and in

academia. The aim of this paper was to address the expert-finding task in a real world academic field. Evaluation results show that the hybrid model outperforms other models in few metrics.

Disadv:-Evaluation results show that the hybrid model outperforms other models only in particular types of metrics but failed to work in all.

2. PROPOSED SYSTEM

2.1 Expert search

The proposed advisor search problem is different from traditional expert search.

(1) Advisor search is keen to retrieving people who are most likely having the desired piece of fine-grained knowledge, while traditional expert search does not overtly take this goal.

(2) The critical difference lies in the data.

In this paper we mine micro aspects and show the advantage of our search scheme over the simple idea of applying traditional expert search methods on session data directly.

2.2 Analysis of Search Tasks

Recently researchers have focused on detecting, modelling and analysing user search tasks from query logs. The search tasks are interleaved and used classifiers to segment the sequence of user queries into tasks.

First, we consider general web surfing contents (including search), rather than search engine query logs. Query logs do not record the subsequent surfing activity after the user clicked a relevant search result. Web surfing data provides more comprehensive information about the knowledge gaining activities of users. Even if various methods were projected for finding search process in logs, these methods cannot be applied in our setting since they exploit query log specific properties.

Second, none of the above works tried to mine fine-grained aspects for each task. When studying, people could spend some effort on one fine-grained aspect of a task and generate multiple contents. Summarizing fine-grained aspects can provide a fine- grained description of the knowledge gained by a person. Finally, none of existing works which analyse user online behaviours address advisor search by exploiting the data generated from users' past online behaviours.

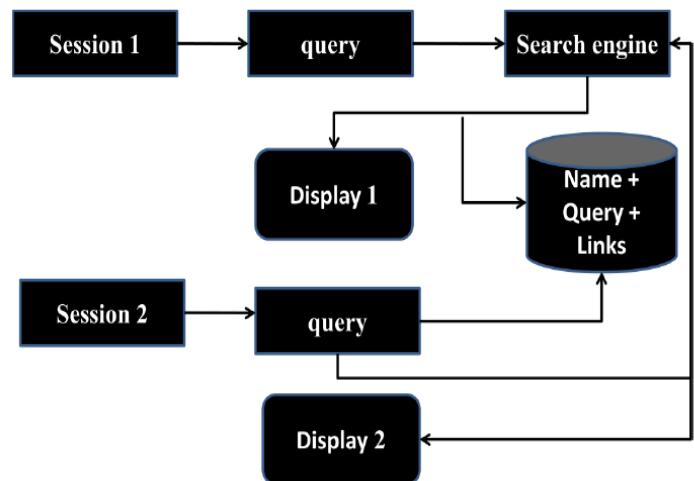


Fig -1: Architecture diagram.

The aim of this method is finding a person who has the desired piece of knowledge rather than domain experts. The proposed tactic provides technique to find proper "advisors" who are most likely having the desired piece of fine-grained knowledge based on their web surfing activities. This work proposes the fine-grained knowledge sharing in collaborative environments. This method is proposed to solve the problems by first summarizing web surfing data into fine grained aspects, and then search over these aspects. First the user entered web surfing data including queries and name is analysed and extracted. This web surfing data is categorized into tasks and these tasks can be further divided into fine-grained aspects (called micro-aspects).

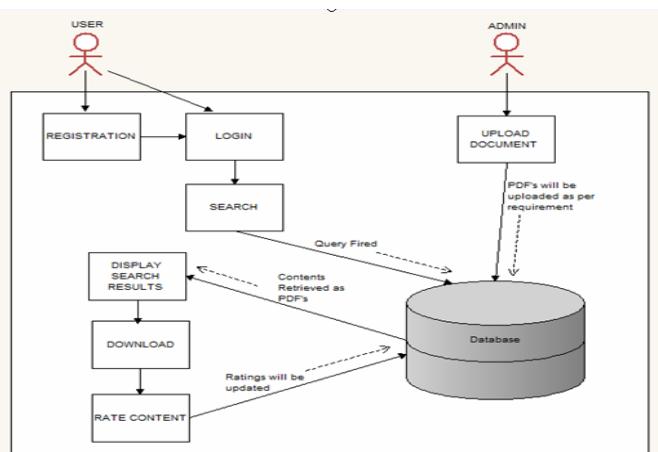


Fig2. Working

1 User will start the session 1 with his /her name and enters the query 2 search engine.

2 Search engine gives the information and as a background task, database is created with name, query entered and related searched links.

3 When next user comes with next session 2 the query is first compared with queries in our database.

4 If it is equivalent then the stored data is suggested and if not then new display is provided with required topic.

3. AIM AND OBJECTIVES

- » To find people who are most likely having the desired knowledge of fine-grained knowledge.
- » To deal with advisor search by exploiting the data generated from user's past online surfing.
- » To sum up fine-grained aspects which can provide a fine grained description of the knowledge gained by a person.
- » To provide a vigorous sharing environment.
- » To provide easy access of desired information and save time of repetitive efforts.

4. ACKNOWLEDGMENT

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5. CONCLUSIONS

Fine-grained knowledge sharing in supportive situations is now a days in practise. Recognized revealing fine-grained knowledge reflected by individuals' associations with the outside world as the way to this issue. A two-stage system is used to mine fine-grained knowledge and coordinated it with the fantastic master search system for discovering right guides. Probes genuine web surfing data appeared empowering results. There are open issues for this issue. The fine grained knowledge could have a various leveled structure. For sample, "Java IO" can contain

"Document IO" and "System IO" as sub-knowledge. iHMM could iteratively apply on the scholarly small scale angles to determine a chain of command, yet how to look over this pecking order is not an inconsequential issue. The fundamental inquiry model can be refined, e.g. fusing the time component since individuals step by step overlook as time streams. Protection is likewise an issue. This framework, illustrate the plausibility of digging errand small scale angles for comprehending this information sharing issue. This method provides a classic expert search method for finding right advisors.

REFERENCES

- [1]. Ziyu Guan; Shengqi Yang; Huan Sun; Srivatsa, M.; Xifeng Yan, "Fine-Grained Knowledge Sharing in Collaborative Environments," in Knowledge and Data Engineering, IEEE Transactions on , vol.27, no.8, pp.2163-2174, Aug. 1 2015
- [2]. D. M. Blei, A. Y. Ng, and M. I. Jordan, "Latent Dirichlet allocation," J. Mach. Learn. Res., vol. 3, pp. 993–1022, 2003.
- [3]. X. Liu, W. B. Croft, and M. Koll, "Finding experts in communitybased question-answering services," in Proc. 14th ACM Int. Conf. Inf. Knowl. Manage., 2005, pp. 315–316.
- [4]. K. Balog, L. Azzopardi, and M. de Rijke, "Formal models for expert finding in enterprise corpora," in Proc. 29th Annu. Int. ACM SIGIR Conf. Res. Develop. Inf. Retrieval, 2006, pp. 43 50.
- [5]. R. Jones and K. Klinkner, "Beyond the session timeout: Automatic hierarchical segmentation of search topics in query logs," in Proc. 17th ACM Conf. Inf. Knowl. Manage., 2008, pp. 699–708.
- [6]. A. Kotov, P. Bennett, R. White, S. Dumais, and J. Teevan, "Modeling and analysis of cross-session search tasks," in Proc. 34th Annu. Int. ACM SIGIR Conf. Res. Develop. Inf. Retrieval, 2011, pp. 5–14.