



PROXIMITY BASED KEYWORD SUGGESTIONS WITH LOCATION AWARENESS

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ABSTRACT

Social media has become an important part of life. People across the world use social media for random purposes. They post their accomplishments, achievements, vacation photos and others on the social media. However, they do not often realize that they are attracting very serious incidents that can occur due to their posts. Online privacy is one of the crucial points to safeguard our personal information. However, protecting privacy in online social networks (OSNs) is challenging as OSNs follow the strategy “Take it or Leave it.” Users need to provide information asked by the service providers in order to use the OSNs that may lead to compromise the users’ data privacy. To provide privacy-aware OSNs it is important to know user’s awareness about privacy. To achieve this, survey is conducted and from analysis of survey the user’s awareness and requirements of privacy-aware mechanism is presented in this chapter. Survey analysis shows that users of OSNs required to have trusted third party to manage their preferences and attributes to protect their privacy. Furthermore, user required new privacy law in Indian context and they need to hide their identity on OSNs. In this paper, we consider a scenario where a user queries a user profile database, maintained by a social networking service provider, to identify users whose profiles match the profile specified by the querying user. A typical example of this application is online dating. Most recently, an online dating website, Ashley Madison, was hacked, which results in disclosure of a large number of dating user profiles. This data breach has urged researchers to explore practical privacy protection for user profiles in a social network. In this paper, we propose a privacy-preserving solution for profile matching in social networks by using multiple servers. Our solution is built on

homomorphic encryption and allows a user to find out matching users with the help of multiple servers without revealing to anyone the query and the queried user profiles in clear. Our solution achieves user profile privacy and user query privacy as long as at least one of the multiple servers is honest. Our experiments demonstrate that our solution is practical.

I. INTRODUCTION

Mobile computing is the discipline for creating an information management platform, which is free from spatial and temporal constraints. The freedom from these constraints allows its users to access and process desired information from anywhere in the space. The state of the user, static or mobile, does not affect the information management capability of the mobile platform. A user can continue to access and manipulate desired data while traveling on plane, in car, on ship, etc. Thus, the discipline creates an illusion that the desired data and sufficient processing power are available on the spot, where as in reality they may be located far away. Otherwise Mobile computing is a generic term used to refer to a variety of devices that allow people to access data and information from where ever they are.



FIG.1- Mobile Computing

Different types of devices used for the mobile computing:

1. Personal digital assistant/enterprise digital assistant
2. Smartphones
3. Tablet computers



4. Netbooks
5. Ultra-mobile PCs
6. Wearable computers

7. Palmtops/pocket computers

Applications of Mobile Computing:

1. Vehicles:

Tomorrow's cars will comprise many wireless communication systems and mobility aware applications. Music, news, road conditions, weather reports, and other broadcast information are received via digital audio broadcasting (DAB) with 1.5 M-bits/s. For personal communication, a global system for mobile communications (GSM) phone might be available offering voice and data connectivity with 384 k-bits/s. For remote areas satellite communication can be used, while the current position of the car is determined via global positioning system (GPS). Additionally, cars driving in the same area build a local ad-hoc network for fast information exchange in emergency situations or to help each other keeping a safe distance. In case of an accident, not only will the airbag be triggered, but also an emergency call to a service provider informing ambulance and police. Cars with this technology are already available. Future cars will also inform other cars about accidents via the ad hoc network to help them slow down in time, even before a driver can recognize the accident. Buses, trucks, and train are already transmitting maintenance and logistic information to their home base, which helps to improve organization (fleet management), and thus save time and money.

2. Emergency:

Just imagine the possibilities of an ambulance with a high quality wireless connection to a hospital. After an accident, vital information about injured persons can be sent to the hospital immediately. There, all necessary steps for this particular type of accident can be prepared or further specialists can be consulted for an early diagnosis. Furthermore, wireless networks are the only means of communication in the case of natural disasters such as hurricanes or earthquakes.

3. Business:

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Today's typical traveling salesman needs instant access to the company's database: to ensure that the files on his or her laptop reflect the actual state, to enable the company to keep track of all activities of their traveling employees, to keep databases consistent etc., with wireless access, the laptop can be turned into a true mobile office.

Benefits of Mobile Computing:

Improve business productivity by streamlining interaction and taking advantage of immediate access.

II. LITERATURE SURVEY

1.Title: Query recommendation using query logs in search engines

Author: R. Baeza-Yates, C. Hurtado, and M. Mendoza.

Abstract: In this paper we propose a method that, given a query submitted to a search engine, suggests a list of related queries. The related queries are based in previously issued queries, and can be issued by the user to the search engine to tune or redirect the search process. The method proposed is based on a query clustering process in which groups of semantically similar queries are identified. The clustering process uses the content of historical preferences of users registered in the query log of the search engine. The method not only discovers the related queries, but also ranks them according to a relevance criterion. Finally, we show with experiments over the query log of a search engine the effectiveness of the method..

2.Title: Query suggestion using hitting time

Author: Q. Mei, D. Zhou, and K. Church

Abstract: Generating alternative queries, also known as query suggestion, has long been proved useful to help a user explore and express his information need. In many scenarios, such suggestions can be generated from a large scale graph of queries and other accessory information, such as the clickthrough. However, how to generate suggestions while ensuring their semantic consistency with the original query remains a challenging problem. In this work, we propose a novel query suggestion algorithm based on ranking queries with the hitting time on a large scale bipartite graph. Without involvement of twisted



heuristics or heavy tuning of parameters, this method clearly captures the semantic consistency between the suggested query and the original query. Empirical experiments on a large scale query log of a commercial search engine and a scientific literature collection show that hitting time is effective to generate semantically consistent query suggestions. The proposed algorithm and its variations can successfully boost long tail queries, accommodating personalized query suggestion, as well as finding related authors in research

3.Title: Query suggestion by constructing term-transition graphs

Author: Y. Song, D. Zhou, and L.-w. He

Abstract: Query suggestion is an interactive approach for search engines to better understand users information need. In this paper, we propose a novel query suggestion framework which leverages user re-query feedbacks from search engine logs. Specifically, we mined user query reformulation activities where the user only modifies part of the query by (1) adding terms after the query, (2) deleting terms within the query, or (3) modifying terms to new terms. We build a term transition graph based on the mined data. Two models are proposed which address topic-level and term-level query suggestions, respectively. In the first topic-based unsupervised Page rank model, we perform random walk on each of the topic-based term-transition graph and calculate the Page rank for each term within a topic. Given a new query, we suggest relevant queries based on its topic distribution and term-transition probability within each topic. Our second model resembles the supervised learning-to-rank (LTR) framework, in which term modifications are treated as documents so that each query reformulation is treated as a training instance. A rich set of features are constructed for each (query, document) pair from Pagerank, Wikipedia, Ngram, ODP and so on. This supervised model is capable of suggesting new queries on a term level which addresses the limitation of previous methods. Experiments are conducted on a large data set from a commercial search engine. By comparing the with state-of-the-Page | 2008

art query suggestion methods our proposals exhibit significant performance increase for all categories of queries.

4.Title: Location-aware type ahead search on spatial databases: Semantics and efficiency

Author: S. Basu Roy and K. Chakrabarti

Abstract: Users often search spatial databases like yellow page data using keywords to find businesses near their current location. Such searches are increasingly being performed from mobile devices. Typing the entire query is cumbersome and prone to errors, especially from mobile phones. We address this problem by introducing type-ahead search functionality on spatial databases. Like keyword search on spatial data, type-ahead search needs to be location-aware, i.e., with every letter being typed, it needs to return spatial objects whose names (or descriptions) are valid completions of the query string typed so far, and which rank highest in terms of proximity to the user's location and other static scores. Existing solutions for type-ahead search cannot be used directly as they are not location-aware. We show that a straight-forward combination of existing techniques for performing type-ahead search with those for performing proximity search perform poorly. We propose a formal model for query processing cost and develop novel techniques that optimize that cost. Our empirical evaluations on real and synthetic datasets demonstrate the effectiveness of our techniques.

To the best of our knowledge, this is the first work on location-aware type-ahead search.

III. SYSTEM ANALYSIS & DESIGN

EXISTING SYSTEM

In Existing system after submitting a keyword query, the user may not be satisfied with the results, so the keyword suggestion module of the search engine recommends a set of m keyword queries that are most likely to refine the user's search in the right direction.

However, none of the existing methods provide location-aware keyword query suggestion (LKS), such that the suggested queries retrieve documents not only related to the user information needs but also located near the user location.



This requirement emerges due to the popularity of spatial keyword search. Google processed a daily average of 4.7 billion queries in 2011,¹ a substantial fraction of which have local intent and target spatial web objects (i.e., points of interest with a web presence having locations as well as text descriptions) or geo-documents (i.e., documents associated with geo-locations).

DISADVANTAGES

- Existing keyword suggestion techniques do not consider the locations of the users and the query results; i.e., the spatial proximity of a user to the retrieved results is not taken as a factor in the recommendation.
- However, the relevance of search results in many applications (e.g., location-based services) is known to be correlated with their spatial proximity to the query issuer.

PROPOSED SYSTEMS

We propose the first Location-aware Key word query Suggestion framework. We illustrate the benefit of LKS using a toy example. Consider five geo- documents d1-d5 as listed.

Each document is associated with a location. Assume that a user issues keyword query seafood at location q. Note that the relevant documents d1–d3 (containing “seafood”) are far from q. A locationaware suggestion is “lobster”, which can retrieve nearby documents d4 and d5 that are also relevant to the user’s original search intention.

That LKS has a different goal and therefore differs from other location-aware recommendation methods (e.g., auto-completion/instant search tag recommendation). Section 5 provides a detailed discussion about the differences between LKS and these models, while in Section 4 we experimentally show that an adaptation of the method is less effective than LKS.

The first challenge of our LKS framework is how to effectively measure keyword query similarity while capturing the spatial distance factor. In accordance to previous query suggestion approaches LKS constructs and uses a keyword-document bipartite graph (KD-graph for short), which connects the keyword queries with their

relevant documents.

ADVANTAGES

- This LKS framework providing keyword suggestions that are relevant to the user information needs and at the same time can retrieve relevant documents near the user location.
- A baseline algorithm extended from algorithm BCA is introduced to solve the problem. Then, we proposed a partition-based algorithm which computes the scores of the candidate keyword queries at the partition level and utilizes a lazy mechanism to greatly reduce the computational cost.
- Empirical studies are conducted to study the effectiveness of our LKS framework and the performance of the proposed algorithms.
- The result shows that the framework can offer useful suggestions and that PA outperforms the baseline algorithm significantly

SYSTEM ARCHITECTURE

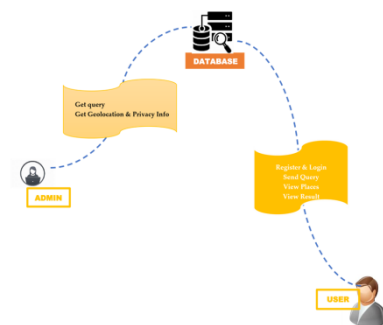


Fig: System Architecture

IV. IMPLEMENTAIONS

MODULES

- User Location Aware
- Query Location Aware
- User Query
- Keyword Query Suggestion

MODULE DESCRIPTION ADMIN

1. User Location Aware Module

This is the first module the user can be authenticated whether the user is valid user or not before that the user wants to register first.

In registration the user have to give user name, password, mail id, location of the current place.

For a security purpose the details will be encrypted



before stored in to the data base.

If the user is valid the user enters in to the application.

2. Query Location Aware Module

- In this module the search details will be register like hotel name, location, special menu in the hotel and land mark.
- This module is used to view the details of the search query when the user searches in the search engine.
- In this module we have to find latitude and longitude when we give the location of the place.

3. User Query

- In User query module the user give a query to find the place.
- For example the user wants to give a current place and searching item in a search engine, like current place vadapalani and menu biriyani.

4.Keyword Query Suggestion

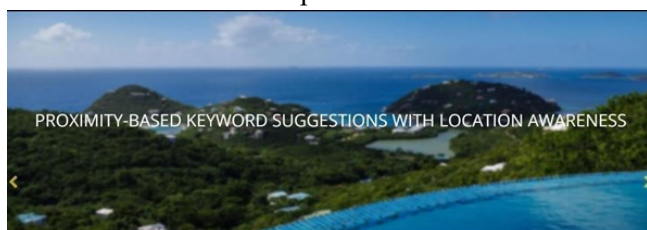
- In this module the Suggestion of a searching query will be display depending upon the latitude and longitude of the user.
- We use Fast nearest Neighbor Search to find the nearest place of a user.

The Location of the particular place will also display in a Google map.

V. SCREENSHOTS

Home Screen

The term "Home screen" refers to the main or initial screen of an application or website that users encounter upon opening the application or accessing the website. The home screen is essentially the starting point and often sets the tone for the rest of the user experience.



USER login screen

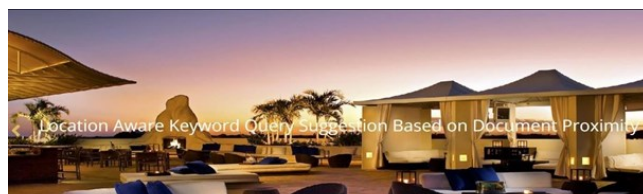
An initiator/responder login screen is a type of login screen used in systems or applications that involve communication or interaction between two

or more parties, often referred to as initiators and responders.



Admin login

An admin login screen involves creating a secure and efficient login interface for administrators or privileged users to access the application's backend or administrative functionalities.



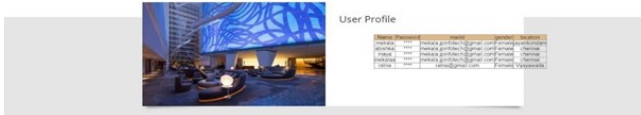
Admin Home Screen

An Admin home screen requires careful consideration of the specific needs and responsibilities of administrators. Creating a user-friendly and efficient admin home screen is crucial for administrators to effectively manage and oversee the system.



View User Details

The Users view lists all users that belong to an account, their details, and the teams with which each user is associated. It also gives access to the user information view which allows you to set a user access rights.



Initiator home screen

The initiator home screen is a crucial part of any application or system that involves interaction between initiators and responders. Initiators are typically users who initiate actions or requests within the system.



Abstract :

VI. CONCLUSION

CONCLUSION

In this paper, we proposed an LKS framework providing keyword suggestions that are relevant to the user information needs and at the same time can retrieve relevant documents near the user location. A baseline algorithm extended from algorithm BCA is introduced to solve the problem. Then, we proposed a partition-based algorithm which computes the scores of the candidate keyword queries at the partition level and utilizes a lazy mechanism to greatly reduce the computational cost. Empirical studies are conducted to study the effectiveness of our LKS framework and the performance of the proposed algorithms. The result shows that the framework can offer useful suggestions and that PA outperforms the baseline algorithm significantly. In the future, we plan to further study the effectiveness of the LKS framework by collecting more data and designing a benchmark. In addition, subject to the availability of data, we will adapt and test LKS for the case where the locations of the query issuers are available in the query log. Finally, we believe that PA can also be applied to

accelerate RWR on general graphs with dynamic edge weights; we will investigate this potential in the future.

FUTURE SCOPE

We have shown it is possible to assess the likelihood that an user is responsible for a leak, based on the overlap of his data with the leaked data and the data of other users, and based on the probability that objects can be 'guessed' by other means. Our model is relatively simple, but we believe it captures the essential tradeoffs. The algorithms we have presented implement a variety of data distribution strategies that can improve the distributor's chances of identifying a leader in further research work.

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