The Community Question Answering System Survey

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Abstract- *In the Information Retrieval (IR) Community Question Answering (CQA) is a new research area. People share their views, opinions in forums and it is part of CQA. There are different websites are available Stack Overflow1, Answers.com2, and Quora3 has very popular because they provide information to all users. Previous websites had limited capacity to provide information. But Current working Q&SSs mainly what question asked by user. QAs research is start in 1960 and since then , developed a very large number of question answering system. The community question answering system is find out research in question answering system. This survey gives knowledge of QASs, it's structure and give future benefit in research.*

Keywords- Community Question Answering, Information Retrieval, QAs.

I. INTRODUCTION

Answers are provide to user by using Question Answer Systems (QASs). Matching different concept and different keyword answers are provided previous QASs, but there are lot's of problem occurs to user because user can't understand exact answers to the questions. To overcome this problems community question answer system is developed. Different community is used to solve the user problem because user easy to get answers. This system is popular day by day. For example, now this time CQA system are doing or working many techniques such as questions of terminology and definition, temporal answer.

Question Processing (QP)-

Extract the answer in collection of very large number of documents and text.

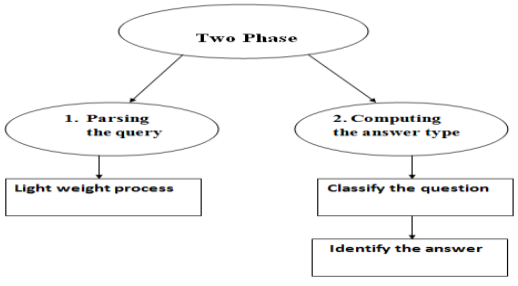

Fig. 1. Question Processing (QP) [4].

Community question system are used many people and there are different websites such as Answers, ask, Yahoo, Research gate, Stack Overflow etc to find or getting more better answers to respected questions. Following websites are allow users to post unknown question or un understandable questions online, and different users are answer to them.

[1]http://answers.yahoo.com/
[2]http://stackoverflow.com/
[3]http://www.ask.com
[4]http://www.quora.com
[5] http://www.answers.com

A. Difference between Question Answering and Community Question Answering

In the Information Retrieval (IR) question answer is one of the system and this system give correct and better answers to users. In Short this system is design only for giving correct and best answer to user questions. In background data multiple question are process and provide answer from background data collection and there are steps required for probable answer. Natural language is used for question answer system.

Includes following in community question answering systems:

1. User put question in QAS. Intermediate or moderator checks this query or question for duplication or correction. After the moderator complete checking, this posted question is viewed by other user which are in different community for answering.

2. Different user interact following ways:-

   i. relevant or irrelevant answers are post user for question based on their view or suggestion.
   ii. Answers to different users by using upvoting or downvoting, based on responses, significance, validity.
   iii. Posted questions reply different community members.

3. Finally, User or asker get best answer or satisfied for that answers then he/she may mark best answer for asking question.

II. RELATED WORK

1. iASK: A Distributed Q&A System Incorporating Social Community and Global Collective Intelligence [1]

Guoxin Liu proposed unified distributed QA system iASK[1] which incorporated both social community intelligence and global collective intelligence. To find good answerer candidates in a users social network, iASK[1] used a Neural Network (NN) to consider multiple factors in evaluating the answer QoS of the users friends. User gets best answers from users in his community.

2. *SOS: A Distributed Mobile Q&A System Based on Social Networks [2]*

This distributed Social-based mobile Q&A System (SOS)[2] with low dependencies and system cost as well as quick reply to question askers. SOS enables mobile users to send questions to potential answers in their friend lists in a decentralized manner for a number of hops and then restore to the server. It depends on lightweight knowledge engineering techniques to accurately find out friends who are able to and willing to answer questions, thus reducing the search and computation costs of mobile nodes.

3. Credible User Identification using Social Network Analysis in a Q&A Site [3]

Although recent commercial search engines use the information concerned with Question and Answering (Q&A), it is still difficult to obtain an appropriate content from numerous user-specified answers in Q&A websites. In order to identify the credible users to help people find a relevant answer, in this workP. GunWoo [3], a ranking algorithm called Influence Rank, which is used as the base of analyzing the relationship in terms of user's activities and their mutual understanding.

4. *Detecting experts on Quora: by their activity, quality of answers, linguistic characteristics and temporal behaviors [4]*

QA system in [4] identifies the best answer based on upvotes and downvotes using crowd intelligence. But, very little is known about properties of experts and non-experts and how to find experts in general topics or a specific topic. To overcome these problem, in this manuscript (1) analyze behaviors of experts and non-experts in five popular topics; (2) propose user activity features, quality of answer features, linguistic features and temporal features to identify distinguishing patterns between experts and non-experts; and (3) develop statistical models using the features to automatically detect experts.

5. *NetTube: Exploring Social Networks for Peer-to-Peer Short Video Sharing [5]*

In last few years there is lot of increase in video sharing, as like shown by YouTube, as a new killer Internet application. Their sustainable development, however, is severely hindered by the internal limit of the client/server architecture so, Cheng et al. [5] proposed NetTube, a good peer-to peer-assisted forwarding framework that searches the clustering in social networks for short video sharing. We address a series of key-design issues to understand the system, including a bi-layer overlay, an effective indexing scheme, and a pre-fetching strategy leveraging social networks.

6. Learning to Recognize Reliable Users and Content in Social Media with Coupled Mutual enforcement[6]

Community Question Answering (CQA) has come out as a popular forum for users to post questions for other users to answer them and likewise, their question gets solved. The Jiang Bian[6] solve problem by developing a new semi-supervised coupled mutual reinforcement framework for simultaneously calculating content quality and user reputation that requires relatively few labeled examples to start the training process.

7. Towards Social Information Seeking and interaction on the web [7]

Information gathering and interaction have been helped by social websites. The interaction can be social in so far that user-generated content is searched and retrieved or, in a more direct manner that social interactions are carried out before, during or after a search by communicating through features like (micro-blog) posts, comments, and ratings. The work in[6] focus on social interactions during the search process by combining a model introduced by which tries to find out the human motivation for using computers with an explorative model for social search given in the documentation. TaskNav[7] presents these extracted task descriptions along with concepts, code elements and section headers in an auto-complete search interface. The output of this TaskNav [7] is in the form of concepts, code elements, and section headers.

8. *Social Search and Discovery Using a Unified Approach [8]*

EinatAmitay [8] proposed a simple yet effective method, based on faceted search, that considers all entities in a unified manner: returning all of them (documents, people and tags) on every search, and allowing all of them to be used as search terms. This work describes a use of such social search engine on the internet of a large enterprise, and present large-scale experiments which verify the validity of their approach.

9. *Propagation-Based Social-Aware Replication for Social Video Contents [9]*

Zhi Wang, Lifeng Sun[9]conducts large-scale calculations of a real-world online social network system to study the forwarding of the social video contents. They have summarized important characteristics from the video sending patterns, including social locality, geographical locality and temporal locality. Motivated by the measurement of user, they proposedpropagation based social-aware replication framework using a hybrid edge cloud and peer-assisted architecture, namely PSAR, to serve the social video contents

10. *Personalized Social Search Based on the User's Social Network [10]*

This work [9] does contribution of the different personalization strategies by an online study and by a user survey within their organization. In the online study they apply bookmark-based evaluation, suggested recently, that exploits data gathered from a social bookmarking system to evaluate personalized retrieval.

11. *Optimizing Web Search Using Social Annotations [11]*

Recently, with the increase rate of use of Web 2.0 technologies, web users with different backgrounds are creating annotations for web pages at an incredible speed. In this paper, we study the problem of utilizing social annotations for better web search, which is also referred to as "social search" for simplicity more specifically, we optimize web search by using social annotations from the following two aspects: similarity ranking and Static ranking.

III. CONCLUSION

In this survey, it is conclude that these work directly not used to find best answers for posted question because they are not conform or considered users quality to answer a specific question. As per my observation or knowledge CQA is best system for answering question and which is focuses on users quality and expertise, but it uses only limited properties to rank users and to find out experts. In the future , I will study the different fault tolerance after CQA system id fail.

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