

The Leading Answerers of Social Q&A Sites: Exploring their Characteristics and Contributions

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Abstract

There has been an immense growth and success of social Q&A sites; they have become an important venue for individuals to seek information related to their educational as well as personal lives. The success of these sites can be attributed to the fact that people find it more convenient to receive customised answers to their queries, instead of going through long lists of answers provided by search engines. The advancements and popularity of social Q&A sites has attracted attention from the academia and researchers. In this paper, an attempt is made to study the top writers of one such platform. The attributes of these answerers and their contributions to these platforms were studied in order to analyse their characteristics. Further, the types of question for which the answers were furnished by these top writers were also observed, to get an insight into the preference/priority while providing responses on such sites.

Keywords: Social Information Seeking, Social Q&A Sites, Answerers, Libraries, Librarianship

Introduction

Innovative technologies are leading to the development of a new era in connectivity, which has influenced the online information-seeking behaviours of users; different platforms are emerging that are consistent with the changing online information-seeking behaviour. One of the important platforms is social question-answer (Q&A) sites that allow people to ask a question online and receive answers from anonymous people. These services permit one to ask a question in their native language and personalised answers tailored to their need are delivered

by other fellow users. Thus, questions and answers are directly generated and updated by the users through their voluntary participation (Liu & Jansen, 2016; Radford, Connaway & Shah, 2012; Shah Oh & Oh, 2008). Examples of such sites include Quora, Yahoo! Answers, Answerbag, Fluther, and so on. Social Q&A services are generally free and open to the public. The questions posted may be related to varied topics, both education and personal life. In addition to questions and answers, one can comment or rate the answers and vote for the best answers.

Social Q&A sites utilise the knowledge of the crowd by allowing peer-to-peer interactions. As anyone can participate on these sites, the level of knowledge, expertise, and experiences of the questioners and answerers are varied. Over the past few years, there has been a phenomenal growth in the use of social Q&A sites that can be attributed to the openness of the content and ease of access to a large user base (Kim, Oh & Oh, 2008; Kim & Oh, 2009). The questions on social Q&A sites are generally categorised into various topics like health, music, science, and so on. This helps the individual to directly access the topic of their choice.

The two main user roles in the context of social Q&A are that of questioner and answerer. Gazan (2006) identified two types of answerers, namely specialists who are knowledge experts and provide answers without referencing other sources, and synthesists, who do not claim any expertise and provide references to their answers. Gazan (2007) also divided questioners into seekers and sloths based on their interaction with other members after posting questions. Seekers demonstrate an active engagement with the community and pursue

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communication regarding their questions. Sloths do not pursue further interaction with community members after receiving answers to their questions.

Erickson (2019) identified three generative processes exhibited by the conversations in a social Q&A site, which include corroboration, elaboration, and disagreement. Corroboration provides feedback to the information seeker, while elaboration helps to clarify the nature of the knowledge that is the object of the initial query. Disagreement is necessary for the representation of diverse perspectives. This provided a new perspective for researchers who want to investigate responses on social Q&A sites. It suggested considering the entire conversation as their unit of analysis rather than evaluating the responses independently.

Review of Literature

A number of studies regarding social Q&A sites were reviewed. Several studies, over a period of time, on the various attributes of social Q&A sites have been taken into consideration. Some studies concentrated on the factors that led to the success of social Q&A sites. Shah, Oh and Oh (2008) proposed that social Q&A sites offer enticements such as level titles, badges, public acknowledgment on leader boards, and other site privileges, as a reward for the accumulation of positive rating points, and the social reward structures are critical to the site's success.

Sin and Chen (2019) investigated the social-emotional aspects of the interaction process on social Q&A platforms that focus on factual answers. They observed that social-emotional acts, particularly where there were disagreements with query outcomes, were exhibited at the post-level and thread level.

Some studies focused on the quality of answers provided on these sites. The studies found that the answers that provided citations and links to other sites received higher ratings than those without any references (Gazan, 2006; Harper, Moy & Konstan, 2009). Some authors tried to compare the answer quality on social Q&A sites with that of library virtual reference services and found that the social Q&A sites were often equal to or exceeded their professional counterparts (Harper, Raban, Rafaeli & Konstan, 2008; Shachaf, 2009; Shachaf & Rosenbaum, 2009).

Some others studied user satisfaction. Agichtein, Liu and Bian (2009) attempted to predict the information seeker's satisfaction and proposed a system based on the answerer's history. They found that the speed with which the answers were received is an important component of user satisfaction. Some authors investigated the factors that motivate people to become engaged on social Q&A sites and the effect of extrinsic motivation on intrinsic motivation (Choi, 2014; Roberts, Hann & Slaughter, 2006; Wang & Hou, 2015; Zhao, Detlor & Connelly, 2016). These studies showed that the effect of enjoyment in helping others and the attitude towards knowledge sharing was undermined by virtual rewards. Further, these studies revealed that the effect of virtual rewards on enjoyment in helping others depended on whether the members were active or inactive. Oh (2012) outlines the following ten motivations for health answerers on social Q&A sites: self-enjoyment, self-efficacy, learning, personal gain, altruism, empathy, community interest, social engagement, reputation, and reciprocity. Previous studies also observed that well-organised descriptions of questions containing positive action-oriented statements were more likely to attract responses (Deng et al., 2019).

Few authors tried to classify the questions on social Q&A sites. Harper, Moy and Konstan (2009) automatically classified questions as conversational and informational. They found that conversational questions have a much lower potential archival value than the informational ones. Kim, Oh and Oh (2007) classified questions from Yahoo! Answers into four categories: information, suggestion, opinion, and others. Harper, Weinberg, Logie and Konstan (2010) took a broader approach, and proposed a taxonomy of question types. They classified questions based on a framework derived from Aristotle's "species" of rhetoric. These include (1) deliberative or future-focused questions, such as those seeking advice or contact with like-minded individuals; (2) epideictic, or present-focused questions, such as those seeking opinions or consensus, whether subjective or objective; and (3) forensic, past-focused questions, such as how-to questions or seeking facts. Pal, Margatan and Konstan (2012) introduced the concept of question temporality based on when the answers provided on the questions would expire. They labelled questions into five categories: permanent, long, medium, short, and other temporal durations. Ignatova, Toprak, Bernhard, and Gurevych (2009) based their question type

annotation framework on a pre-Web scheme developed by Graesser, McMahan, and Johnson (1994) in the field of psycholinguistics:

- *Concept Completion*: questions seeking to supplement known information.
- *Definition*: of terms or acronyms.
- *Procedural*: how-to.
- *Comparison*: similarities and differences between two or more objects or concepts.
- *Disjunctive*: objective or subjective opinions about the relative merit of two or more objects or concepts.
- *Verification*: confirmation of assumptions included in the question.
- *Quantification*: questions seeking a numerical answer.
- *Causal*: seeking explanations for observed rules or phenomena.
- *General Information Need*: including non-specific requests.

Problem

Social Q&A sites have grown considerably in popularity during recent times and revolutionised the information-seeking behaviour of the people. Most people prefer the use of online Q&A services over search engines, as these provide personalised answers to their queries and, in most cases, allows them to ask questions in their native language. Many researches and academicians are making endeavours to study the various characteristics of these sites to gain a deeper understanding of these emerging information-seeking platforms. Thus, in this paper, we shall study the top answerers of one such popular platform, the Quora, and analyse the contributions and characteristics of the writers.

Scope

The scope of this study is limited to the social Q&A site, Quora, as it is a rapidly growing Q&A site and is easily accessible. Further, the study was limited to just the one subject category, that is, libraries and librarianship.

Objectives

The objectives of this study can be summarised as follows:

- To identify the top answerers of a particular month, in the category of libraries and librarianship.
- To study the attributes of these answerers and their contribution to these sites, which includes their country, number of followers, total number of questions posed, and answers provided.
- To study the type of question for which the answers were furnished by them.
- To study the answers of select questions in terms of features like length of the answer, use of images, videos, and links in the answer, and the number of views.

Methodology

The methodology for the current study comprises the following phases:

Phase-I

Quora was selected as the source for the collection of data, because of its unprecedented growth among Q&A sites for quite some time now. Quora categorises its content into different subjects. For this study, the category of libraries and librarianship was selected. The top writers for this category in the month of April were identified (on 11 May, 2020). The top writers in each category are listed by Quora, on the basis of the number of views they received for their answers in that particular category during the last 30 days. From the profile of each answerer, their country, number of views, number of followers, total number of questions posed, and answers provided were studied.

Phase-II

In the second phase, ten answers (that were answered by the top ten writers in the selected category) from the profile of each of these answerers were selected for the study. It was observed that two top writers out of the ten have less than ten answers (four and six, respectively) in

the selected category, which amounts to 90 answers. Each selected answer was studied in order to determine the type of question for which the answer was provided, length of the answer, use of images, videos and links in the answer, and the number of responses for each question type. The questions were classified employing the criterion that was propounded by Ignatova, Toprak, Bernhard and Gurevych (2009). The collected data was tabulated, analysed, interpreted, and correlated to reach logical conclusions.

Interpretation

Top Ten Writers

The Quora provides top ten writers on the basis of the number of views received by the answerer in the last 30 days. In the category of libraries and librarianship (in the month of April), Spencer Alexander McDaniel from the USA ranked first, with 30,977 views, followed by Brett Williams from Canada (5,558 views). Richard P. Morrall, Emilie Smart, Kerry Hamlett Fountain and Brian Collier from the USA followed, with 5,175, 4,824, 4,357, and 3,713 views, respectively. YouthUn Reading Rooms from India ranked 7th, with 3,476 views, followed by Eric Anyanwu from the UAE (3,334 views), Arpita Sharma from India (2,804 views), and Valetta Cannon from the USA (2,688 views). Thus, among the top ten writers, six belonged to the United States, two were from India, and one each from Canada and the UAE, as shown in Table 1.

Table 1: Top Ten Writers

Rank	Top Writers in Libraries	Country	Answer Views
1	Spencer Alexander McDaniel	United States	30977
2	Brett Williams	Canada	5558
3	Richard P. Morrall	United States	5175
4	Emilie Smart	United States	4824
5	Kerry Hamlett Fountain	United States	4357
6	Brian Collier	United States	3713
7	YouthUn Reading Rooms	India	3476
8	Eric Anyanwu	United Arab Emirates	3334
9	Arpita Sharma	India	2804
10	Valetta Cannon	United States	2688

Contribution of Top Writers

It was observed that the top writers in the selected category participated actively on Quora, which has stimulated a large number of people to follow them on this platform. Among these top writers, a majority of them usually answer queries, rarely raising any question/query themselves. The only exception to this pattern was found in two writers: Brett Williams and Arpita Sharma, who, in addition to answering many queries, have asked a good number of questions themselves. On average, the ratio between answers provided and queries raised was found to be 15:1. Due to their contributing nature, these writers have huge followers on these platforms, with few exceptions, as depicted in Table 2.

Table 2: Contribution of Top Writers

Top Writers in Libraries	Total No. of Answers	Total No. of Questions	No. of Followers
Spencer Alexander McDaniel	602	1	4184
Brett Williams	5088	484	6975
Richard P. Morrall	5225	10	1475
Emilie Smart	380	1	33
Kerry Hamlett Fountain	971	3	109
Brian Collier	1096	3	304
YouthUn Reading Rooms	73	0	4
Eric Anyanwu	22	9	11
Arpita Sharma	1942	568	1455
Valetta Cannon	151	2	74

Use of Multimedia and Links in Answers

The use of images, videos, and references enhances the validity of an answer. As such, the top writers in this platform utilise these tools to strengthen the validity and popularity of their answers. Among the top ten, YouthUn Reading Rooms has made the maximum use of images and links in their answers, followed by Spencer, Valetta, and Arpita. Brian Collier, Brett, and Richard have made use of only links in their answers.

It is worth noting that during a study of the answers from these top writers, it was found that only one individual

(Shiwani Kumar) has addressed all their questions to YouthUn Reading Rooms, which raised some suspicions. On deeper investigation into the profile of Shiwani Kumar, it was found that she has asked a total of 58 questions and all were addressed to the YouthUn Reading Rooms. In addition, the writing patterns of both profiles have striking similarities; investigators strongly feel that both these accounts are managed by single person.

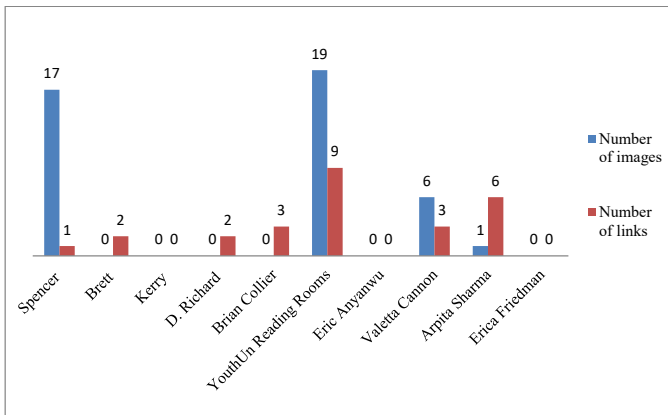


Fig. 1: Use of Multimedia and Links in Answers

Types of Question Answered by Top Writers

Different types of questions are being asked on social Q&A sites, varying from general information to seeking opinions, and many others. The questions for which answers were provided by these top writers were studied to determine which types of questions were preferred by the top writers for answering. In this study, the questions were classified employing the criterion that was propounded by Ignatova, Toprak, Bernhard, and Gurevych (2009); this included the following types: (i) concept completion: questions seeking to supplement known information; (ii) definition: of terms or acronyms; (iii) procedural: how-to; (iv) comparison: similarities and differences between two or more objects or concepts; (v) disjunctive: objective or subjective opinions about the relative merit of two or more objects or concepts; (vi) verification: confirmation of assumptions included in the question; (vii) causal: seeking explanations for observed rules or phenomena; and (viii) general information need: including non-specific requests. Among the 90 questions answered by the top writers, 23 are general information need, 22 are disjunctive, 16 procedural, 11 verification, nine causal, and six are comparison. Only three questions were the

concept completion type and one was the definition type. Thus, one can conclude that general information need and disjunctive types of questions were the most preferred categories by the top writers for providing answers.

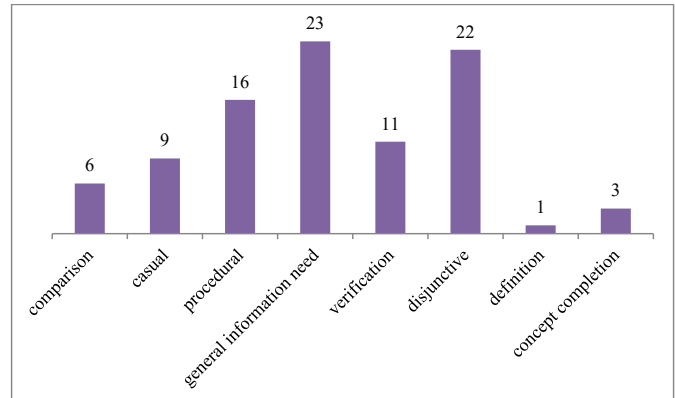


Fig. 2: Question Types

Average Number of Responses for Each Question Type

The average number of answers received by each question type were studied to know if the question type that was the most answered by the top writers was also the most answered questions in general on this platform. Disjunctive (13) types of questions have received the most responses on an average, followed by causal (nine). Procedural, general information need, and verification have received the same number of responses (four). Three responses were received on both comparison- and definition-type questions, whereas concept completion had only one response on an average. Thus, it was found that, in general, disjunctive is the most answered question type and concept completion is the least answered.

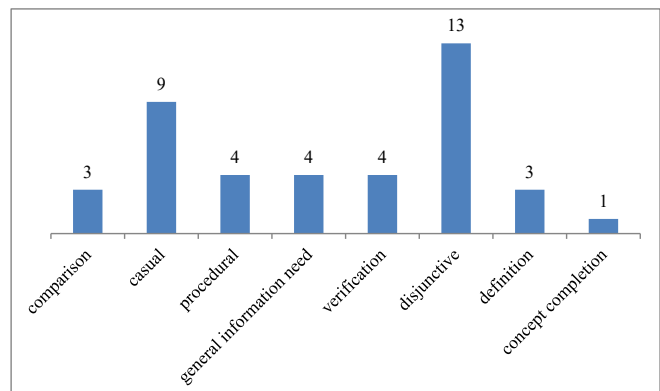


Fig. 3: Average Number of Answers

Conclusion

The social information seeking (SIS) model believes that everyone knows something, thus providing an individual with the opportunity to make use of the wisdom of the crowd. The advent of new technologies has provided various platforms for SIS; these include social Q&A sites that help people get their information needs fulfilled by anonymous people. The people perform various activities on these sites, like asking questions, providing answers, rating the answers of others, and so on. In this paper, the top writers for the social Q&A site, Quora, were examined. The study concludes that the top writers are the main drivers of these sites. Their contribution is very crucial for the sustenance of Q&A sites, as their content forms the major portion of their database. Most of the top writers who were studied for this paper belonged to the USA, which shows that individuals from developed countries are more active on these platforms. This may be due to the fact that masses of developed countries as they are more active on social platforms, and thus are more motivated to gain social capital by contributing to these platforms. In addition, it was observed that disjunctive types of questions were the most answered categories, whereas concept-completion types of questions were the least answered on Quora, which shows the preferences of users of Quora for their responses. This can be attributed to the fact that disjunctive types of queries can lead to more discussions than other categories that attract more responses.

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