Should Wikipedia and Quora Collaborate?

Anamika Chhabra*, S. R. S. Iyengar†

Dept of Computer Science and Engineering, IIT Ropar, Punjab, India

*anamika.chhabra@iitrpr.ac.in, †sudarshan@iitrpr.ac.in

Abstract—Although Wikipedia has been one of the most successful experiments in crowdsourced knowledge building so far, recent statistics show that the growth rate of Wikipedia has decreased. Does it indicate that Wikipedia has come against its limits of growth? A recent survey conducted by us, however, shows that Wikipedia is unable to satisfactorily answer the queries of the users many a times. We believe that the readers can provide a better insight into the shortcomings of the articles. This paper proposes the incorporation of a Q&A facility into Wikipedia as one of the possible measures to fill the knowledge gap. We created a local Wiki, named Q-Wiki, at our institute, coupled with the features of Q&A. The experiment conducted on Q-Wiki verifies the effectiveness of the proposed idea.

I. INTRODUCTION

Knowledge building is a complex phenomenon. Although Web 2.0 has provided enough techniques for efficient knowledge building, there is still a gap between what can be achieved and what we have been able to achieve in this domain. As Nonaka [1] rightly puts it, "the knowledge that can be expressed in words and numbers only represents the tip of the iceberg of the entire body of possible knowledge". The challenge lies in extracting the knowledge of the users through the use of an appropriate interface [2].
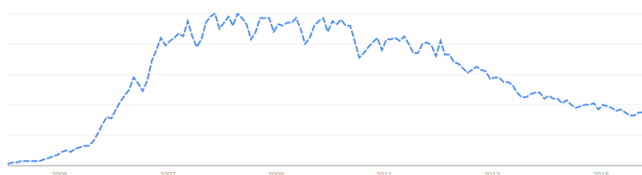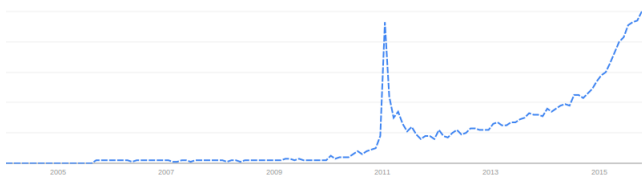

Figure 1. Wikipedia Trends [3]

Figure 2. Quora Trends [3]

Wikipedia and Quora are two of the knowledge building environments which seem to have experienced fair amount of success in this domain. The question arises, however, whether Wikipedia and Quora have been able to come up to the

Figure 3. Number of article growth on en.wikipedia.org [4]

expectations that were laid upon them a few years earlier. A glimpse at the trend of Quora indicates the current time as the boom period for Quora[5] (Fig. 1). The trend plot of Wikipedia, however, indicates that Wikipedia's popularity has gone substantially down [3] (Fig. 2). If we look at the growth rate of Wikipedia, it peaked in 2006 and began to decline in the subsequent years (See Figure 3). The figure 3 represents number of article growth in Wikipedia [4]. Considering the fact that the scope for creation of new articles is bound to decrease with time [5], it makes sense to check whether the growth rate of content in these articles has remained the same or has it declined as well. Figure 4 represents the growth of content in the articles [6]. It can be seen that the size of the articles created has been gradually decreasing. This point also may not be very astonishing considering that the articles created during the early stages of Wikipedia were the most important ones and hence a lot could be written about them.

An important question to ask is whether Wikipedia has reached its limit of growth. Is there no further scope for more content? Has it already acquired the maximum possible amount of knowledge? A survey conducted by us however indicates that there is a huge scope for more content in Wikipedia (Section II). The challenge now lies in knowing the gaps in Wikipedia where further knowledge could be added, to make it more exhaustive.

We increasingly believe that the readers are the most important people who can convey the editors of an article about the points where the particular article is lacking. So, the solution lies in utilizing the potential of these lurkers who could provide valuable inputs about the articles. We propose that if Wikipedia incorporates a facility for adding Q&A about the articles, the quality of the content will immensely improve. Although it currently provides a feature of 'Talk Pages', however, as our survey results show, many people find it difficult to understand the structure of these talk pages. Further, it is used mainly by

Figure 4. Percentage of article growth per month [6]

the editors of the article, and not by the readers. It does not have any features for requesting the editors for articulating certain part of the article, or pointing out the shortcomings of the article. In order to observe the benefits of having a Q&A, we conducted an experiment on the local wiki created at our institute. It was observed that the incorporation of Q&A lead to the enhancement in the knowledge of Wiki.

II. THE SURVEY RESPONSE

We conducted a survey in order to get a better idea of users' perceptions regarding Wikipedia's use and editing practices. The highlights of the responses of the survey are as follows: 57.7% users stated that sometimes Wikipedia does not answer their queries. 18% users stated that many a time they do not get the answer to their query. Which indicates that Wikipedia has not been able to answer queries of 75.7% users. When asked, while reading some article on Wikipedia, did they feel that the article's information was wrong or badly stated, the responses were: 5.3% answered 'very often', 68.8% answered 'sometimes', and 9.5% answered 'Yes for certain types of articles'. This indicates 83.6% users are not satisfied with the content of Wikipedia. We also wanted to get the users' perspective on the use of talk pages. 16.9% stated that they never heard of talk pages, another 45% never used talk pages. This demonstrates that 61.9% users are devoid of the benefits that the talk pages provide. we believe that there may be several reason for this inactivity on talk pages, which includes a difficult-to-understand structure of these pages. Our next question of the survey gives a hint towards this belief. Out of the users who know about the talk pages, 30.7% expressed that they found the talk pages very confusing, and 43.8% said that it takes them some time to understand what was going on in a particular talk page. This means that only 25.5% of all the Wikipedia users are comfortable and are being able to fully utilize the benefits that the talk pages can provide. When Wikipedia editors were asked about their relative activity on Wikipedia, 60.5% admitted that their editing activity on Wikipedia has decreased. When asked about the reason for their decreased editing activity on Wikipedia, 25.9% stated that Wikipedia is already exhausted, whereas 74.1% said that it is not exhaustive, but they can not find the missing points where they may contribute. Further, 77.3% editors admitted that it would really help them if they are told what are the points in the articles that are missing and they could add.

III. THE TRIANGLE RELATIONSHIP

We define 'Knowledge Gap' for an article as the difference between the maximum knowledge that can ever be added to the article and the current knowledge in the system. We believe that the incorporation of Q&A into the knowledge repository will help in filling these knowledge gaps of the articles. It actually gives rise to a triangle phenomenon among the Knowledge Repository, questions and the answers. When a reader reads a particular article, he comes across the knowledge gaps of the article, and subsequently posts his questions. These questions are then read by the editors as well as other readers of the same article, after which they add answers to these questions (Figure 5).
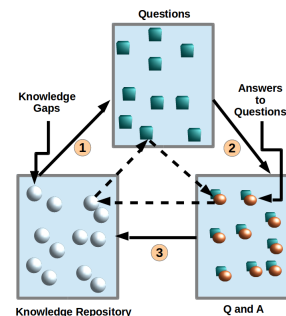

Figure 5. The Triangle Relationship

We created a local Wiki, named Q-Wiki, at our institute, coupled with the features of Q&A. The users read the wiki articles and then posted questions and answers on these articles. These Q&A were then considered by the editors in further enhancing the articles. The experiment conducted on Q-Wiki verifies the effectiveness of the proposed idea in accelerating the knowledge building process.

IV. CONCLUSION

As of now, Wikipedia has no provision of recording the feedback from the readers. An important necessity is to let Wikipedia editors know about the points where the articles are lacking. The readers of the articles can help pointing out the knowledge gaps in the articles. The study demonstrates the importance of coexistence of knowledge database and Q&A forums to effectively externalize the knowledge of the contributors in knowledge building environments.

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