Analysis of Redditor Reliability

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ABSTRACT

In this paper, we present a system by which to evaluate the reliability of the users of the popular social network Reddit. Though Reddit is many things to many people, increasingly, through the efforts of both the company running Reddit and the userbase itself, it is becoming a place where users come to read and discuss news. Thus, there is a growing need to evaluate the realibility of the suppliers of information on Reddit. We first collect features of reliable and unreliable users based on their contributions, and importantly, the reaction of the community to their contributions. We then use machine learning techniques to train a regression model to give a reliability score to an arbitrary user, with promising results.

1. INTRODUCTION

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Something something boston bombing [3].

Something something news doesn't always go to the top [1]

2. RELATED WORK

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Something something only a single subreddit [2]

3. DESIGN

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4. EVALUATION AND RESULTS

From our trained random forest regression model, we get a picture of the way that Redditors are. We get a glimpse of what useful, contributing Redditors look like, and what bad, non-contributing Redditors look like.

We collected data on around two thousand Redditors, and ran their data through our regressive model to get a reliability score $-1 \leq s_r \leq 1$. Then, we re-correlate this score with input features to intuitively see what features are important or not, and what features indicated useful and not-useful Redditors.

Table 1: The features used to create the regression model

Feature Description	Importance %
Is Reddit Gold	0.13141645
Has Verified Email	0.75193818
Time Account Created	0.36501668
Flesch–Kincaid Readability of Comments	0.1780538
Link Karma	51.24893713
Number of Gilded Posts	0.
Number of Total Posts	9.34206046
Average Karma per Post	13.51664424
% of Posts Gilded	0.
Comment Karma	21.0226671
Number of Gilded Comments	0.
Average Comment Karma per Comment	0.49150516
% of Comments Gilded	0.
% of Post Karma - Trusted Subreddits	0.04919857
% of Post Karma - Top 100 Subreddits	0.11182328
% of Post Karma - Top 50 Subreddits	0.10522454
% of Post Karma - Top 25 Subreddits	0.03107503
% of Post Karma - Top 10 Subreddits	0.02660348
% of Comment Karma - Trusted Subreddits	0.11130672
% of Comment Karma - Top 100 Subreddits	1.7193966
% of Comment Karma - Top 50 Subreddits	0.09484735
% of Comment Karma - Top 25 Subreddits	0.06505774
% of Comment Karma - Top 10 Subreddits	0.34236058
% of Swear Words Used in Comments	0.03435242
Unique Words / Total Number Words	0.26051451

TODO

Figure 1: The distribution of the reliability score s_r of the sampled Redditors, binned into two bins.
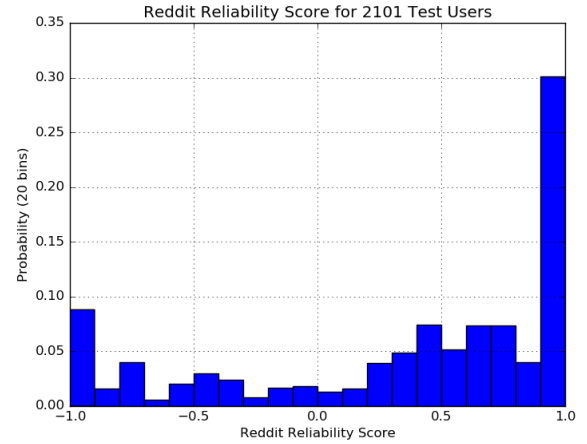
Figure 2: The distribution of the reliability score s_r of the sampled Redditors, binned into twenty bins.

5. CONCLUSION

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6. ACKNOWLEDGMENTS

7. REFERENCES

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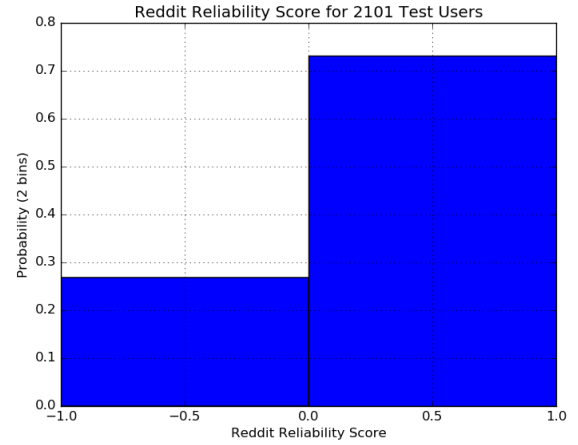[3] L. Potts and A. Harrison. Interfaces as rhetorical constructions: Reddit and 4chan during the boston marathon bombings. In *Proceedings of the 31st ACM International Conference on Design of Communication*, SIGDOC '13, pages 143–150, New York, NY, USA, 2013. ACM.
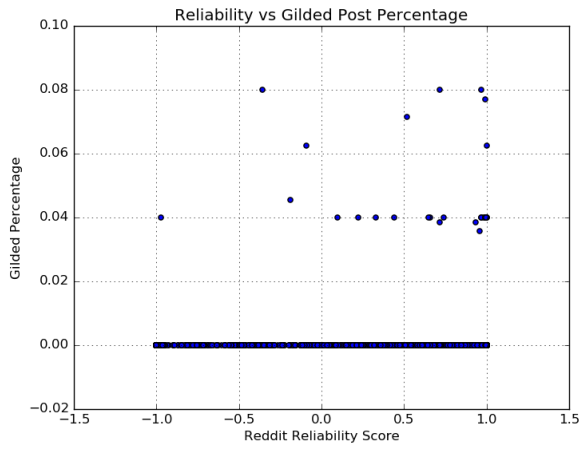
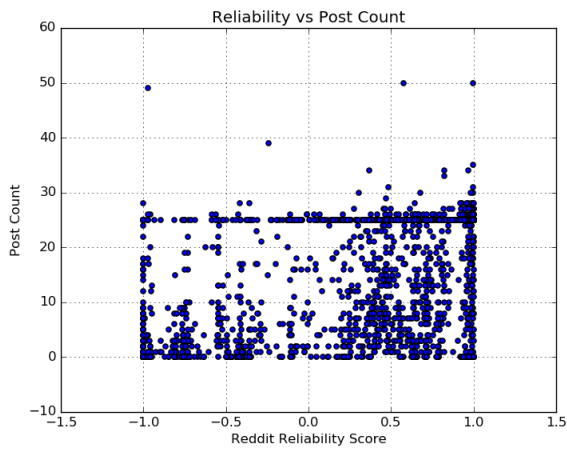**Figure 3: The reliability score s_r plotted against the percentage of gilded posts.**

Figure 4: The reliability score s_r plotted against the number posts the Redditor has made.
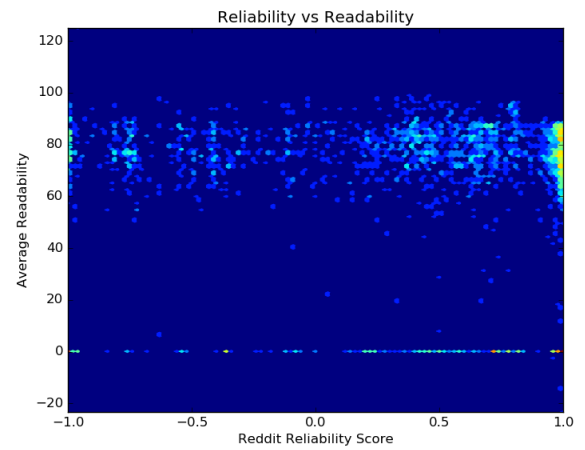

Figure 6: The reliability score s_r plotted against the Flesch–Kincaid readability of their comments.
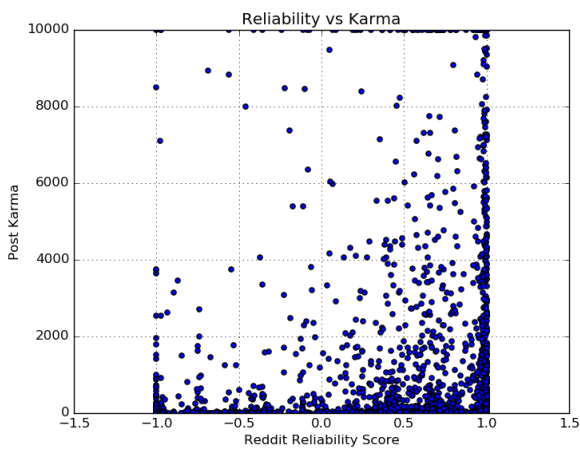

Figure 5: The reliability score s_r plotted against the average Karma per post the Redditor has made.