

LetStory: Crowdsourcing media-rich story

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ABSTRACT

Social media serves as an important role in spreading news, sharing ideas and information. Recently social media, like Facebook and Twitter, even actively act as a platform to attract civic engagement, rise public awareness, and assemble participants into protest activities. Contents (e.g., photos, videos, texts) of the posts are essential elements to trigger people's awareness and motivation, however, creating a compelling post is difficult and usually accessed by only small group of people. This paper presents a high-fidelity prototype, LetStory, that supports crowds' collaboration on media-rich story creation. We allow people calling for new story by sharing their photos as a story frame. Our system, then, gathers crowds and manage them collaboratively create a quality story. The community of the contributors can benefit by gaining recognition of their works and engaging in social commitment.

INTRODUCTION

Kiva <https://www.kiva.org/> is an international nonprofit organization, which connects people through lending to alleviate poverty. They publish borrowers' stories, helping them attract funders lending money. The loans are used to support borrowers start or grow a business, go to school, access clean energy or realize their potential. For some, it's a matter of survival, for others it's the fuel for a life-long ambition. On Kiva, the story is a window opened for understanding borrower's life, therefore, plays an important role to attract funding.

Nowadays, social media, like Facebook and Twitter, are considered as powerful awareness-raising tool for non-profits, companies, or campaign [2]. While social media can spread information and idea quickly, the influence itself relies on telling people a compelling story in the posts. Many marketing strategies come out, teaching people how to efficiently write a good story to raise public awareness [3]. In many organizations, involving Kiva, they usually recruit a group

of experts to create stories or posts, while for individual untrained people, it is hard to make influential contents.

Crowdsourcing is a way to solve it. Previous works have proved that carefully design crowdsourcing mechanism can leverage crowds creating meaningful contents [4][6]. We further envision the possibility of transforming the desire of voluntary contribution to story writing, as well as lower the entry barrier of social commitment. Crowds may outperform experts in terms of writing compelling stories if we can lead them aggregating their experiences and emotions. Here, we presents LetStory, a platform for crowdsourcing media-rich story.

LetStory allows everyone to open a request calling for new story. As a requester, he/she can write description and attach photos to frame the story. Instead of dividing a whole task into micro tasks, LetStory provides an overview of all contents, including the creation process. We decide this because of the voluntary attribute of LetStory. LetStory presents a single view that enables crowd notice the current result, make contribution where needs more works, and show how much they contributed.

RELATED WORK

Mechanical Novel[5] is a system that crowdsources short fiction stories on AMT. This system mainly focuses on breaking the task into micro tasks. But tackles the problem by breaking the work into dependent parts when it comes to creating a story. Systems like CrowdForge[6] and Turkomatic[7] are also trying to solve this problem, but all of them are coming to the same conclusion and that is that workers requires expert intervention. LetStory solves this problem by guiding and facilitating the crowd to be the one that will decide the outcome collaboratively.

It has also been initiatives from CNET which is an American media website that publishes technology news. Their experiment was made by a journalist called Eric Mack and it was made by crowdsource a sci-fi novel[1]. The goal was to create the first MMOSFN that stands for Massively Multiwriter Online Science Fiction Novel that means that this the crowd is making a story about science fiction. This is similar to LetStory in the way that the crowd is given the plot of the story and will therefore adapt after that. One other similarity is that both of this approaches is using a voting system that is voting

for the best contributors. This majority voting process is important to assure that the best contributions is used. But the difference between CNETs system and Letstory is that LetStory brings flexibility and diversity. This comes from the freedom that the requester has to pick whatever important issue that needs to be raised. In the case of CNETs novel, it is only one specific topic and not more than that.

THE LETSTORY SYSTEM

LetStory is named after the collaboration action among requesters and workers to write story together. LetStory is an online writing platform which has two main view: Requester view and Worker view.

LetStory supports unified identity for a requester and a worker. This way, transition between roles is effortless and possible at any time. This encourages LetStory members to explore both roles.

In Requestor view, requester can raise an important issue and let it be addressed via an engaging story produced by the crowd through simple button UI. Requesters can also engage in story creation, mostly by providing guidelines in the form of the description and optionally media. Requester can view the request histories and track the progress of each particular story. Inside each request, LetStory allows requesters continue upload media such as inspiring pictures which help in story writing process. Moreover, LetStory lets requesters customize their story workflow by switch the phases easily. There are three phrases for each story and they are Collect, Write and Vote.

In Worker View, workers can express their interest by picking an interesting story assignment. A worker can suggest a paragraph or write another version. Workers are kept motivated by seeing their paragraphs being up voted. The worker wants their creative thoughts be peoples favorite.

Collect phase allow workers to upload medias to each request. There is a restriction and verification which only allow jpeg, jpg, png and gif file type to be uploaded in LetStorys database. An error message will notify workers if they try to upload wrong file type.

Write phase allow workers continue write the story. Workers can submit alternative version for each paragraph or write a new paragraph for the particular story.

Vote phase allow workers to review and vote for the best version for each paragraph to ensure the only good content can succeed. Every worker is limited in their votes, so the system can not be gamed. LetStory provide story-related chat function to help workers to communicate when writing story. Workers can collaborate more effective and efficient by coordinating and exchanging thoughts. To keep our users visible and motivated and express gratitude, LetStory display nick names of authors everywhere necessary.

EVALUATION

Evaluation of the system does span several dimensions. While we do evaluate actual text (stories) generated in both quality and quantity we also evaluate user interface of the

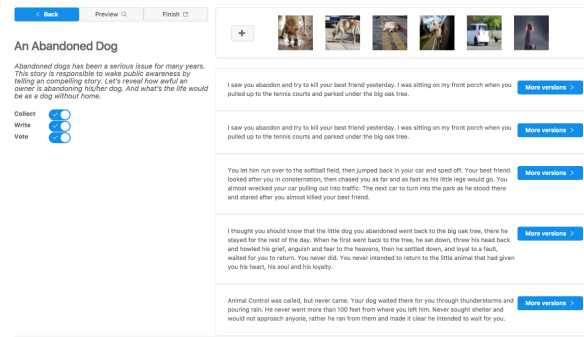


Figure 1. Requester's control panel for a story. Requester can close/open collecting, writing, voting functions.

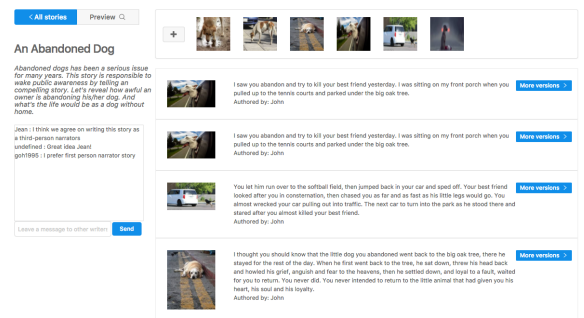


Figure 2. Workers share a single view. Every edit on the story will synchronously update to all viewers. This view mainly support three functions: uploading photos, writing and viewing contents, voting best paragraphs. We also provide a chat area to help them discuss.

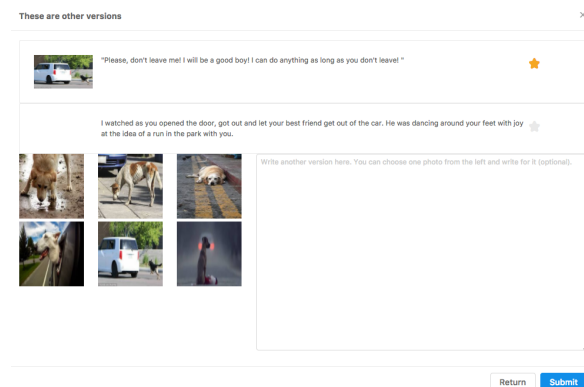


Figure 3. The writing area is placed beneath the versions in order to promote reviewing and rating others' works. Each paragraph can attach one photo to support writing.

system. Finally we did question users about our novel collect/write/vote paradigms as well as about the concept of variable sequential & parallel workflow. We did not perform comparison to similar solutions since we do consider LetStory as quite novel and comparing systems that are not at the same level of functionality is out of scope of this paper.

We recruited 50 (28 female) participants coming from our friends and academic surrounding. The majority of the spectrum of users are young people (roughly 60% in the age category of 16-25). Although we do not consider this distribution

of testers ideal, we do consider it significant enough to conclude some of our findings.

We did brief each and every participant with a description of the system, its functionality and tasks we do ask them to perform. We did also respond to all follow-up questions be there any and we also did quickly verify their understanding of basic concepts with three questions randomly picked from a pool prepared by us. Lastly we did statistically ask our users a preference between being a requester or a worker for our understanding of motivations behind users joining LetStory. We then also examine their contributions and if their initial interest shifted.

We examined following metrics and relationships:

Requesters versus workers

When examining the ratio of users deciding for a requester/worker role, we found that only around quarter of users did ever take a role or a requester and only 6 uniquely identified users launched at least one story request. As of workers, as many as 90% of users took a worker role at least one time and at least 39 uniquely identified users contributed at least one paragraph to some story.

Story requests

Looking at stories that were requested, we looked at some of patterns that might emerge. While the objective was to measure quality and quantity of requests, we also looked at the workflow settings and willingness to start a proposal with at least one media file. Requesters did launch in total of 8 stories (1.3p stories per active requester, 0.35 stories per all requesters), where there was an instance of requester launching as many as three stories and as mentioned before as many as 17 requesters never launched a story. As per media, we found out that 5 out of total 8 stories have an initial set of images provided by the requester himself. Story workflow was less diverse as we expected, where out of 8 stories only one was not set as fully open. After further interviewing requesters, why did they not set the workflow the different way, they commented on not being aware how would that make story better.

Story creation

In story creation, we tried to understand a couple of different metrics. Among some straightforward ones such as quantity of paragraphs, media collected and unique workers per a story request, we looked at the revisions of initial paragraphs, ratings and also distribution of all work on all workers within one story as well as globally. Out of 8 stories launched, the average number of paragraphs, which are the smallest granular units, we measured average of 6.5 paragraphs per story (the longest story had 12 paragraphs, while the shortest only one). When talking about media, an average of 8.3 distinct pictures were uploaded per each story. Out of these, in average 3.2 came from requesters and rest (5.1) came from workers. There was no story that would have all paragraphs with no picture attached and two stories had all paragraphs containing an image file. As of revisions, The paragraph had an average of 2.5 revisions and statistically the most of revisions

were done on first paragraph (3.8 vs 1.2 all paragraphs except the first one). We also spotted occasions (7 in total of 2 stories) where a new version of the paragraph was largely (more than 75%) based on the previously written successful paragraph. Coming to the evaluating of the voting feature, we firstly looked if workers actually do vote. In average, the sum of votes on all paragraph versions of each and every paragraph is as much 40% of votes available (votes available does match all workers that engaged in the story by some contribution authoring a paragraph or uploading the media file).

CONCLUSION

We present a high-fidelity prototype, LetStory, that supports crowds' collaboration on media-rich story creation. Contributors are motivated by gaining recognition of their works and engaging in social commitment. LetStory allows people calling for new story and providing inspiring pictures. Our system, then, gathers crowds and manage them collaboratively create a quality story. We provide a single view for each story workspace in order to give an overview on the current result and awareness how much they have contributed. The story creation work is mainly divided into three parts: collecting photos, writing story, voting best paragraphs. LetStory provides workers and requesters certain tools to help them collaborate with each others. Finally, we deployed the platform and evaluated how people work with LetStory.

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