

Micro-NGO: Crowd-Driven Social Activism Via A Chat-Based Online Platform

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ABSTRACT

We introduce Micro-NGO, a platform that aims to attract ordinary citizens who are interested in a social issue to form small virtual teams easily. A team of intrinsically motivated volunteers collectively (1) brainstorms and decides on potential solutions, (2) decomposes the solutions into small action items, and (3) executes, monitors, and iterates on the actions. The platform encourages the crowds to interact with each other via a chat channel. To guide effective collective action, a virtual chat agent provides a task decomposition and task recommendation workflow. The virtual agent guides the crowd's independent collective action while the team members have limited domain-specific knowledge and low willingness to contribute.

Author Keywords

Collective Action; Crowdsourcing; Social Activism;

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous;

INTRODUCTION

Online social activism is becoming a popular way to practice social activism [7]. While online media are used as a social mobilization channel, the role of the crowd is often passive, and the planning roles are rarely given. Usually, an online social activism is not initiated and governed by crowds [3]. This ecology, which requires lots of work from the activism organizers, is not suitable to handle various local social problems at scale and cannot expect high problem ownership from crowd members.

Recent tools such as Loomio and DemocracyOS allow planning roles to crowds. While these efforts show progress on consensus generation, they do not support generating a detailed action plan and managing execution by crowds. We believe that crowds can handle planning roles

effectively if the system assists detailed action planning and execution.

In this position paper, we identify major challenges in encouraging online social activism and propose a novel online platform.

CHALLENGES

We identify three main challenges of empowering the crowd to take an active role in the problem-solving process.

First, most social issues are ill-structured [9], with unclear goal states and incomplete information. To solve such ill-structured problems, a participant needs to utilize domain-specific knowledge [2]. However, an ordinary crowd participant who is interested in a social issue may lack the knowledge necessary for solving it.

Second, inducing high-cost (e.g., time or efforts) contributions from online team members are a hard problem [5]. A team member may not make a contribution if one's perceived cost of the task is high. To overcome this problem, work can be divided into small actions. However, extracting small actions from a rough goal state is a complex task.

Finally, setting a shared goal of a team is a complex task [6]. To establish a shared goal in a collaborative relationship, group interactions like discussions or debates are essential [8]. Discussions on the Internet are often free-form discussions, but strategies are needed to be productive [1].

To address these challenges, we present Micro-NGO, a chat-based online crowdsourcing platform that supports collective decision making and action.

MICRO-NGO

Micro-NGO adopts chat as a primary interaction channel. Chat interfaces have several advantages for online team discussion. (1) Chat is a common channel for online discussion, (2) most users are familiar with them, and (3) they do not involve complex rules or procedures for a contribution.

Despite these advantages, it is difficult to support social activism with the chat interface alone. To coordinate collective action, Micro-NGO adopts a virtual chat agent. The main purpose of the virtual chat agent is to assist task generation and to coordinate its execution. The virtual chat agent supports the following three processes:

(1) Workflow selection. The agent collects preliminary solution proposals from team members. Once a rough solution is proposed, the agent asks crowds to pick the best workflow from a set of pre-populated workflows the system supports (Figure 1).

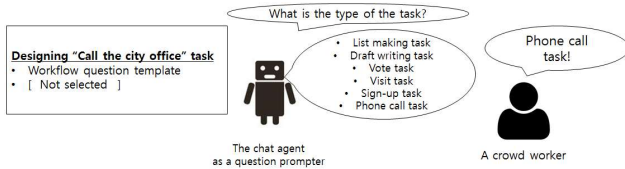


Figure 1. The agent supports workflow selection through action templates.

For example, in Figure 1, team members discussed the “malfunctioning problem of the city’s sewer system”. One of the team members suggested “call the city office” as a solution. The virtual agent asks the crowd to choose an appropriate action template, such as “Phone call task”. Micro-NGO provides several types of action templates that are commonly found in social activism as a workflow. Examples include making a list (e.g., listing environmentally friendly companies), creating a document (e.g., drafting a petition statement), and making a phone call (e.g., calling a city office).

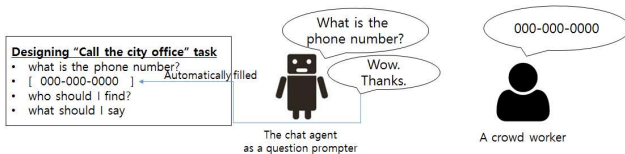


Figure 2. The agent supports task decomposition through question prompting.

(2) Task decomposition (Challenge 2) with question prompting (Challenge 1). To elicit participation from team members who might lack domain specific knowledge [2], Micro-NGO prompts team members to answer questions. An action template contains questions that are helpful in generating a detailed action plan. The virtual agent prompts the questions to crowds to guide the task decomposition process.

For example, in figure 2, the "call the city office" task requires answers to the following questions: “what is the phone number?”, “who should I find?”, and “what should I say”. When all the answers are completed, they become descriptions for action items that any team member can easily pick up and execute (Figure 3). This lowers the participation barrier for team members who might not have all the context for the task.

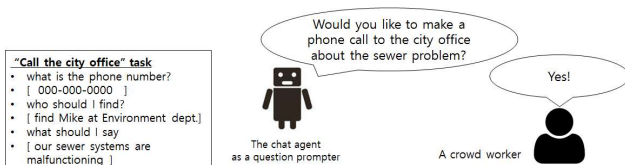


Figure 3. The agent supports task distribution through personalized recommendations.

(3) Task distribution. After a team finishes task decomposition, the virtual agent can distribute the tasks to the team members. The virtual agent learns user preferences and contexts to achieve a high hit ratio. In Micro-NGO, we take advantage of the user’s records to recommend the most appropriate or preferred microtask.

For example, the chat agent can ask the user "Would you like to make a phone call to the city office about the sewer problem?" and the user is given two options “Yes” and “No.” If the user selects “Yes,” the agent then supplies the details of the microtasks.

CONCLUSION

This position paper explores the possibility of using a virtual chat agent to promote online social activism. For future work, we will explore more advanced strategies the agent can support, and verify the effectiveness of the Micro-NGO platform through a live deployment.

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