How to Govern the Crowd? Governance Mechanisms in Crowd Work

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Introduction

The concept of crowd work includes three stakeholders: crowdsourcers, crowdworkers, and crowdworking platform providers. Crowdsourcers define tasks and make an open call via a crowdworking platform. Crowdworkers overtake these tasks in return for payment (Durward et al., 2016a). The platform provider matches crowdsourcer(s) and crowdworker(s) and undertakes the payment process (Blohm et al., 2018). To ensure long-term success in this business model, platforms are obliged to effectively govern and control stakeholders so that these act in a desirable way. This includes (1) crowdworkers completing tasks according to the crowdsourcer's satisfaction and (2) crowdworkers being remunerated on time according to the agreed conditions (Durward et al., 2016b). The platform's value increases when a particular user group is facing a great size of the opposite network and when governance mechanisms are established (Möhlmann et al., 2021). Control and governance mechanisms for different scenarios have been widely studied in information systems (IS) research (Saunders et al., 2020). IS research has not covered the control and governance mechanisms applied by crowdworking platform providers yet. By conducting empirical qualitative research, we aim at identifying governance mechanisms that platforms apply to govern crowd workers. We thereby provide additional insights into the control and governance literature while theoretically developing quality assurance mechanisms for crowdworking platforms.

Theoretical Background

Crowd Work

Crowd work is a form of digital employment composed of "*crowd*" and "*outsourcing*" and was introduced by Jeff Howe (2006). Crowd work is divided into simple, repetitive micro tasks that do not require certain skills and macro tasks that are complex and necessitates knowledge (Durward et al., 2016a). Whereas individuals in crowd*sourcing* campaigns are motivated intrinsically, crowd*workers* are only incentivized extrinsically; monetary inducements play a major role (Durward et al., 2016a). The relationship between crowdsourcers and crowdworkers differs from a traditional worker-employee setting as crowdworkers do not receive an employment contract from the crowdsourcer. Instead, there is only a verbal agreement between both parties. Legal obligations do not exist to the extent of a working contract as both only enter a contract with the crowdworking platform. This insecure composition bears the risk of information asymmetry between crowdsourcer(s) and crowdworker(s).

The Process Model of a Crowd Work Campaign

We take the five-phase crowdworking campaign identified by literature (Durward et al., 2016a) as a basis for our analysis. We go through the different steps and categorize our results accordingly to develop governance mechanisms that crowdworking platforms currently apply.

Figure 1. Five-phase Process Model of a Crowd Work Campaign, inspired by Durward et al., 2016a
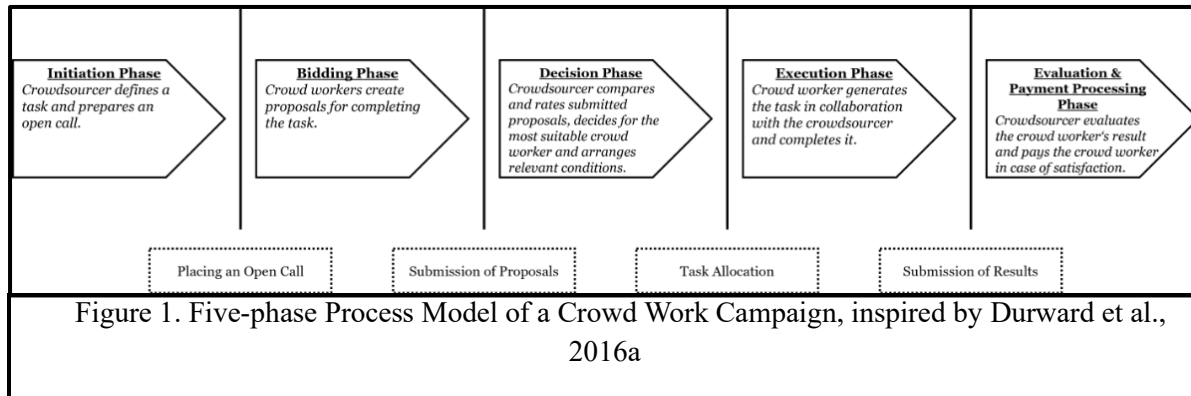
In the first phase (*initiation phase*), crowdsourcers define a task, precisely describe it, decide on a crowdworking platform, and prepare an open call. In the second phase (*bidding phase*), platforms either (1) ask crowdworkers to create proposals for completing the task (macro tasks), (2) crowdworkers pick the task to be completed (micro tasks), or (3) crowdworkers apply for executing the task (macro tasks). Based on the crowdworker's profile, crowdsourcers decide which of the applicants get the macro task. The third phase, the *decision phase*, either starts with (1) crowdworkers submitting their proposals followed by the crowdsourcer comparing and rating all results (macro tasks) or with (2) crowdsourcees selecting a crowdworker (micro tasks). For these micro tasks, the decision phase is redundant. In the fourth phase, the *execution phase*, tasks are allocated and completed by a crowdworker. After results are submitted to the crowdsourcer satisfactorily, the evaluation and payment processing phase commences where the crowdsourcer evaluates the crowdworker's performance and crowdworkers receive their payment.

Research Design

Following Carroll (2000), we deploy a five-stage analysis process after having conducted four interviews with managers of four different crowdworking platform providers. In the first stage, we break down the interview transcripts that we gained from the collected data. We then subsequently assign each unit with specific codes. In the second stage, we analyze the coded units, identify categories of related issues, and subsequently sort and cluster them accordingly (e.g., code aggregation). In the third stage, we test whether these categories are inter-subjectively resistant (Carroll, 2000) by creating a coding scheme where categories and exemplary indicators are defined. In the fourth stage, we intensively discuss the results from the previous step to either (1) build a consensus, (2) drop them from further analysis, or (3) create a further category. During the axial coding process (fifth stage), we aim at finding plausible relationships between all identified categories/mechanisms, thereby

organizing the theoretical components into higher-level (or core) categories (Olsson et al., 2008). To ensure our study's validity and credibility, we plan on conducting eight more interviews with platform providers.

Preliminary Findings

In line with Gregory et al. (2018) and Xue et al. (2008), we define governance mechanisms as structural and processual mechanisms. Whenever mechanisms are implemented before tasks are processed, we define them as coordination mechanisms; whenever mechanisms are implemented during/ after tasks are completed, we define them as control mechanisms.

Preparation Mechanisms

A coordination mechanism offered by the platforms is "*task definition mentoring*". The customer support of crowdworking platforms actively contacts new clients and assists them in how to frame an accurate task description before uploading it to the platform ("*Crowdworkers want clear and precise descriptions.*" (CEO 1); "*Crowdsourcers have to clearly describe the tasks they want solutions for, what they want, how they want it and in what level of detail.*" (CEO 2)). The more precise and accurately the crowdsourcer defines a task, the more likely it is that the task will be understood and interpreted correctly by crowdworkers. This, in turn, leads to better results as misunderstanding is reduced (Jeppesen & Lakhani, 2010).

Matching Mechanisms

As in any business relationship, a conflict of interest also exists in the crowdworking construct. Crowdsourcers suffer from an information asymmetry with respect to crowdworkers, which puts them in a disadvantaged situation (Akerlof, 1970). To minimize this information asymmetry, platform providers ask crowdworkers to complete exemplary tasks before their profile is activated; it presents a coordination mechanism. The performance in those "*pre-registration tasks*" is translated into a one-to-five-star assessment indicated on the platform after the crowdworker's profile registration is completed. A further matching mechanism is the coordination mechanism "*skill-based allocation*". It allows allocating tasks to the crowd based on pre-defined skills and expertise or backgrounds. The job is displayed only to those that fulfill the requirements according to their profile ("*If there is a crowdworker that has detailed knowledge in a certain unusual type of sport, the crowdsourcer has a great interest in choosing the expert for tasks requiring such knowledge.*" (CEO 3)). Micro task crowdworking platforms establish a "*demographic-based allocation*" mechanism, a coordination mechanism that allows crowdsourcers to select crowdworkers based on demographic attributes (e.g., age, income, gender). For micro and macro tasks, crowdsourcers can select an appropriate crowdworker employing the "*experience-based allocation*" mechanism. In that case, crowdsourcers select crowdworkers based on their background and knowhow in certain areas. Matching the most suited crowdworker with required skills, experiences, demographics, etc.

increases the chance of high-quality solutions delivered by crowdworkers (CEO 3, 4).

Quality Assurance Mechanisms

For ensuring that crowdworkers deliver solutions as specified in the task description, crowdsourcers are allowed to review them before crowdworkers are paid. In case crowdsourcers ask for small changes that are part of the task description, the task is given back to the crowdworker for including changes. Only after the crowdsourcer is satisfied with the solution(s), crowdworkers receive their payment via the platform. To ensure liquidity, crowdsourcers can only employ crowdworkers if they have enough platform-specific currency on their account. This currency needs to be purchased by crowdsourcers before they can upload a task. As soon as the task is uploaded, the platform subtracts the value of the task from the crowdsourcer's account. In case the task is completed successfully, the platform transfers this amount to the crowdworker's account. Else, the money is sent back to the crowdsourcer. Given there is a disagreement between the crowdworker and the crowdsourcer concerning the agreed tasks and/or payments, the platform interacts as an arbitrator. This mechanism decreases the principal-agent theorem and the moral hazard problem. Reputation systems serve as an inducement by supporting crowdworkers' wish to demonstrate and signal their competencies, experiences, or merits. A popular example is a one-to-five-star ranking created by previous clients who evaluate the crowdworker. Evaluation criteria are defined by the crowdworking platforms (e.g., skills, know-how, communication during the handling time etc.). The results of the scores for each crowdworker are displayed on the crowdworking platform and help crowdsourcers to decide on a crowdworker.

Regulation Mechanisms

The most prevalent governance regulation mechanism identified and applied by all crowdworking platforms interviewed are *non-disclosure agreements* (NDAs) to guarantee confidentiality. To ensure that the platform's code of conduct is complied with, intermediaries publish their guidelines in netiquettes ("*We do not accept crowdsourcers on our platform that are offering ethically questionable services*" (CEO 4)). Before crowdsourcers or crowdworkers can create a profile on the crowdworking platform, they need to agree to its terms and conditions. Besides, platforms make use of authentication functionalities. Before a crowdworker's profile goes online, platforms ask new members to authenticate themselves. One example of member authentication is employed by asking them to provide a photograph of their upper body and a specific item (CEO 3, 4).

Conclusion

Our preliminary findings provide clear managerial implications as we identified governance mechanisms that allow platform providers to add and sharpen their currently existing tools. This lets them govern the crowd more structured and effectively. The theoretical contribution of our research lies in identifying governance mechanisms for

crowdworking campaigns. Both implications are in the interest of all included stakeholders as the governance mechanisms increase the chance of reusing the platform due to satisfactory solutions and appropriate payment.

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