

# Demands on task recommendation in crowdsourcing platforms – the worker's perspective

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## *Survey Design Documentation for RecSys'15 CrowdRec Submission*

### 1. Overall Survey Design

The survey shown on the following pages was conducted in order to gather data about the preferences of workers with respect to task recommendation in crowdsourcing platforms. Further details about the data and the analysis can be found in [1].

The survey consists of 6 pages shown in Figure 1. The first page is used to introduce the idea of task recommendation to the worker. The main section is framed by two pages asking for demographics and personal data of the worker. These test questions are (not obviously) designed redundant in order to identify spammers. The main part of the survey consists of three pages. The first to vote for given recommendation criteria, the second to rank recommendation criteria and the third one to give additional opinions about the most important recommendation criteria used.

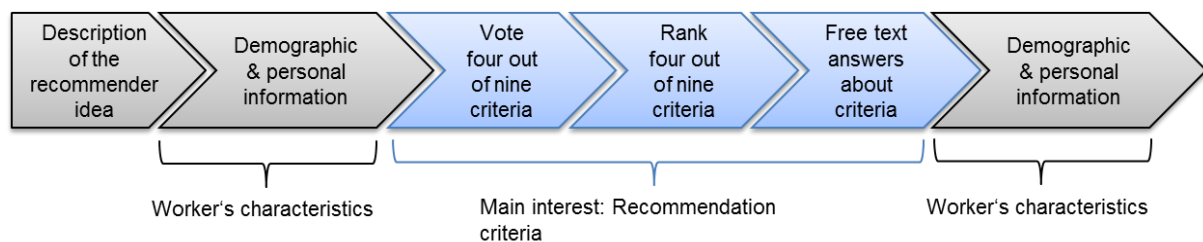




Figure 1: Design overview

## 2. Introduction

The first page shown in Figure 2 introduced the idea of task recommendation for crowdsourcing platforms and had to be kept open for at least 60 seconds before the worker was allowed to move on.

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# Welcome!

In a research project of three German universities we investigate which additional functions can enrich crowdsourcing platforms. In this questionnaire we want to gather information which kind of task recommendations workers would prefer in a crowdsourcing platform like Microworkers.

Please read the following description about task recommendations before you proceed with this form. To give you time to read, the navigation is disabled for at least 60 seconds.

You probably know recommendation systems from other areas in the internet. Online shops recommend goods to buy, video and news portals recommend contents to you. These recommendations have been chosen for you due to different criteria.

Recommendation systems could also be applied to crowdsourcing platforms like Microworkers to support you as a worker selecting a task. Within our research project, we want to investigate what kind of recommendations is preferred by workers.

Please imagine the following scenario when answering the following questions:

**You are a worker who works on tasks on a crowdsourcing platform. After having finished a task, you want to start a new task. Instead of selecting a new task from the comprehensive list of available tasks by yourself, the platform recommends to you preferred tasks and you may choose your next task from this short list.**

In the following questionnaire we will provide you with different kind of recommendations. Please contemplate about what kind of tasks you would want a crowdsourcing platform to recommend to you when you answer the question.


Next ▶  
Next in 45 seconds...


Questions? Please read the [frequently asked questions](#) or [drop us an email](#).

Figure 2: Introduction

### 3. Worker's characteristics (1)

The second page shown in Figure 3 asked the worker for some personal data about demographics and their activity within the crowdsourcing platform. Some answers of the questions shown in the figure can be evaluated by comparing the data with data from the platform provider. Others can be calculated from additional questions given on the last page of the survey. These answers were used as test questions in order to identify spammers.

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## Questions about your personal experience with crowdsourcing platforms

Please provide some information about your person:

**Gender:**

**Age (in years):**

**Country of origin:**

**Country of residence:**

Please provide some information about how you work with crowdsourcing platforms:

**How many years have you been using crowdsourcing platforms?**

**How many tasks do you accept on an average working day?**

**How many days per week do you work on crowdsourcing platforms?**

**How long do you search for a task before you accept it (in seconds)?**

**Which share of your tasks gets rejected (in percent)?**



Next

Figure 3: Worker's characteristics (1)

## 4. Voting for Recommendation Criteria

On page four, partly shown in Figure 4, the worker had to choose from nine different recommendation criteria. The workers were allowed to choose exactly four criteria from the list.

The order of the given criteria was randomized and therefore different for each of the surveys.


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### Preferred task recommendations

We would like to know which kind of recommendation you would like to use in a future crowdsourcing platform. Please select your favorite **4** kinds of recommendation.


☐

**Task offering the most money**

~~Task offering the most money~~  
~~Task offering the most money~~  
Rate management Folder  
~~Task offering the most money~~  
~~Task offering the most money~~

This task offers the highest payment.


☐

**Task offered by best rated requester**

~~Task offered by best rated requester~~  
~~Task offered by best rated requester~~  
Interest in Group → 1  
Sign-up in Group → 100  
~~Task offered by best rated requester~~  
Magic of Group → 100  
~~Task offered by best rated requester~~

A task from a requester who was rated by other workers to be the best one.

☐

**Task taking the least time**

~~Task taking the least time~~  
~~Task taking the least time~~  
Interest in Group → 1  
Mobile Sign-up in Traffic  
~~Task taking the least time~~  
Crowd Sign-up for 100



This task will be completed the fastest.

Figure 4: Voting for recommendation criteria

## 5. Ranking Recommendation Criteria

Figure 5 partly shows page five of the survey. Here the worker was presented with the same recommendation criteria as for voting on page four, but in a randomly different order. Now the worker was supposed to rank the four most important recommendation criteria. Each rank could only be given once.

The redundancy between pages four and five was deliberately chosen in order to identify spammers. The assumption was, that workers should actually choose the same four recommendation criteria for ranking as they voted for on page four. However, analyzing the other fields for spam detection revealed that many well-answered submissions showed less than 3 matches between voting and ranking. Therefore, all submissions with at least two matches were considered valuable. But only those ranks were taken into account for data analysis, where it matched a vote within the same submission.

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### Rank of task recommendations

Please rank your **4 chosen** recommendations from 1 (most important) to 4 (least important).

**Task done by workers who are similar to you**

Question using Signup +1  
a Question +100  
Post +1000 share on Internet  
Blog Signup +100  
Blog Signup +1000

A task which was completed by workers who completed similar jobs like you.

Rank: 1 2 3 4

**Task best rated by others**

Survey and questions on  
questions on other blog  
Survey and questions on research  
Fiverr Ask a Question  
another blog use interest

Other workers rated this task to be the best one.

Rank: 1 2 3 4

**Task different to your previous task**

Post +100 using Signup +1  
Blog Signup +100 in an interest  
in an interest  
interest +100  
using Signup


A task which is different to the one you recently completed


Rank: 1 2 3 4

Figure 5: Ranking Recommendation Criteria

## 6. Open Question

After having been introduced to task recommendation and the criteria we proposed for the recommendation, the free text question on page six shown in Figure 6 allowed the worker to state their current behavior. Many workers used this either to emphasize their opinion on previously chosen criteria on page four and five or introduced other criteria that were not given for choice or ranking before.

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### Your current selection criteria

Based on what criteria do you select your tasks in a crowdsourcing platform currently?

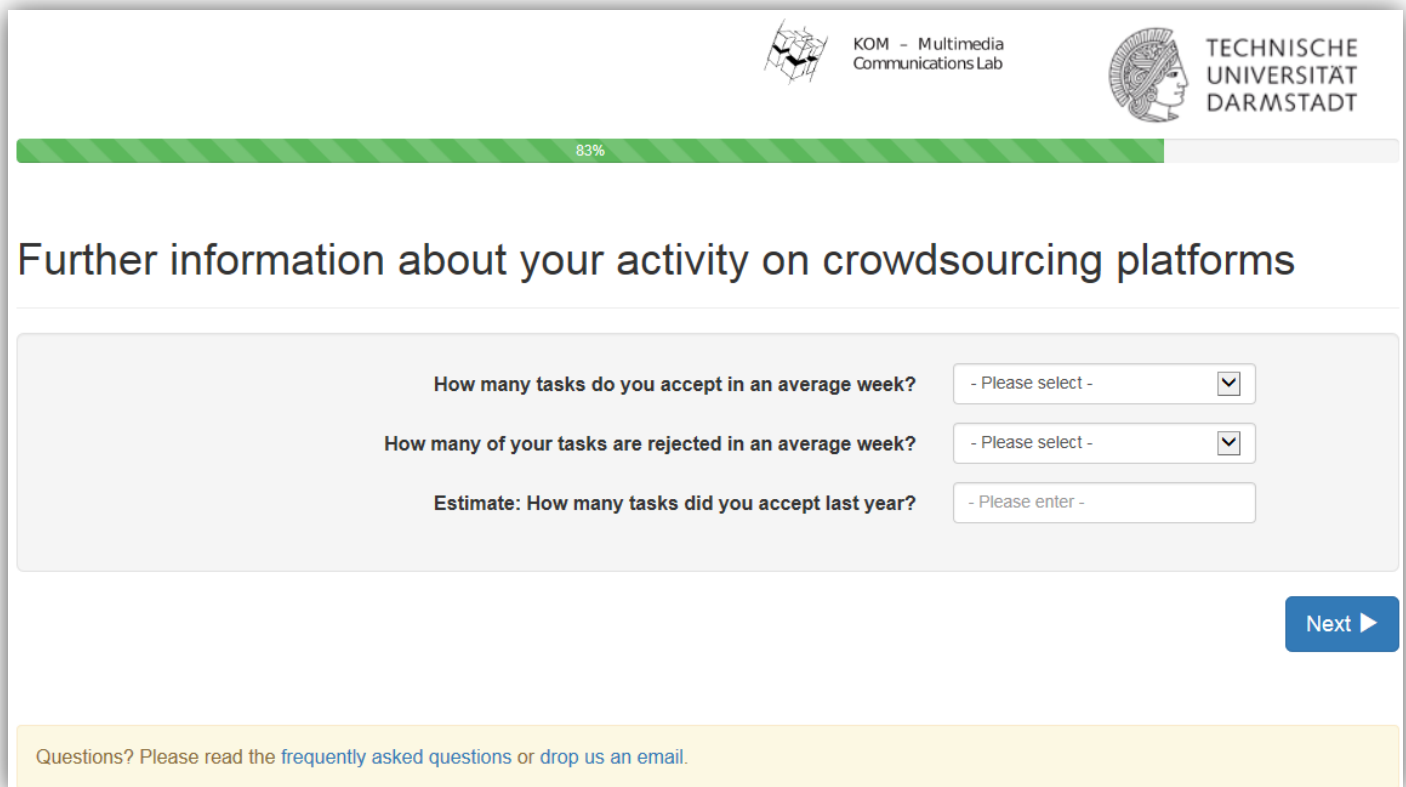
Next ▶

Questions? Please read the [frequently asked questions](#) or [drop us an email](#).

Figure 6: Open Question

## 7. Worker's characteristics (2)

The last page shown in Figure 7 asked for additional and redundant information as described for page two already.



The screenshot shows a survey form with a green progress bar at the top indicating 83% completion. The header includes the KOM - Multimedia Communications Lab logo and the Technische Universität Darmstadt logo. The main title is 'Further information about your activity on crowdsourcing platforms'. The form contains three questions with corresponding input fields:

- How many tasks do you accept in an average week? - Please select - (dropdown menu)
- How many of your tasks are rejected in an average week? - Please select - (dropdown menu)
- Estimate: How many tasks did you accept last year? - Please enter - (text input field)

A blue 'Next' button with a right arrow is located at the bottom right. A footer bar contains the text: 'Questions? Please read the [frequently asked questions](#) or [drop us an email](#).'

Figure 7: Worker's characteristics (2)

## References

[1] S. Schnitzer, C. Rensing, S. Schmidt, K. Borchert, M. Hirth, P. Tran-Gia - Demands on task recommendation in crowdsourcing platforms – the worker's perspective, ACM RecSys 2015, CrowdRec Workshop – to be published