

Crowdsourcing Resume Feedback using Amazon Mechanical Turk

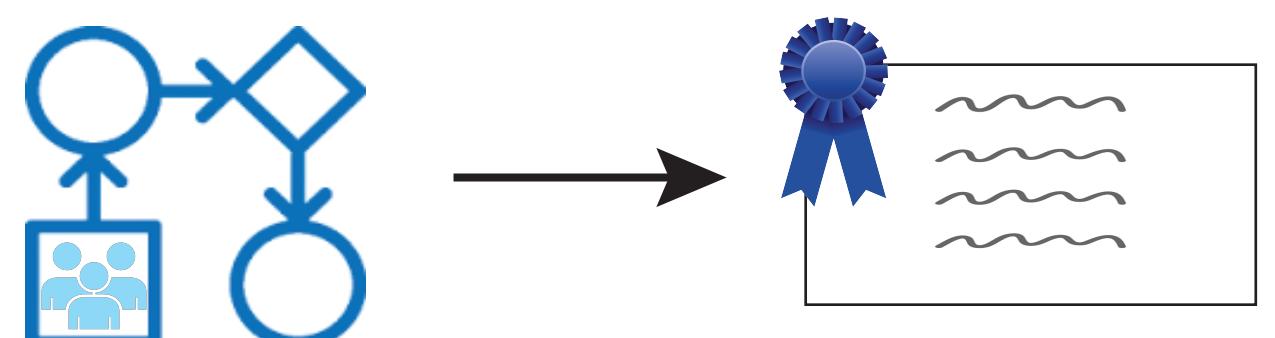
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ABSTRACT

The economic recession and the stagnant economy have left many individuals jobless. We believe that technological solutions (e.g. crowd sourcing, knowledge-based platforms) that are pervasive today could help to decrease unemployment. Though these technological solutions are relatively inexpensive, there has been minimal effort to utilize them in the area of employment. Ideally, all individuals should have equal access to career resources; however, this is not true for all. For example, certain individuals may have limited career-orientated resources in their community or there may be high costs associated with using the available resources. Individuals who do not have a steady income may find it difficult to pay for career advice, which may make it difficult for them to find a stable career path. However, crowdsourcing platforms have successfully been used to evaluate surgical performances and to improve public transit accessibility for blind riders. In a similar vein, this research aims to leverage crowdsourcing platforms such as Amazon Mechanical Turk to give feedback to users regarding their career development. These users represent individuals facing barriers such as unemployment, low income, low-paying jobs, and criminal backgrounds. I have used Amazon Mechanical Turk (AMT) and Qualtrics to conduct tasks, which request crowd workers to evaluate sample resumes. Other crowd workers will evaluate the original MTurker answers and return a summary that comprises of the best quality answers. This process is currently being integrated into a larger automated system that aims to provide individuals with resume feedback and other suggestions for achieving their professional goals.

OBJECTIVES

- How can crowdsourcing be used to give quality feedback on resumes?
- What is the best workflow to get the highest quality resume feedback from the crowd?



METHODS

1. Competitive Analysis

Performed a competitive analysis on algorithmic and online resume feedback services to understand the strengths and weaknesses of these services, and the improvements that could be made.

2. Surveys

Surveys were deployed using Amazon Mechanical Turk and Qualtrics. Crowd workers answered questions that asked for their feedback on a resume.

- Two Resumes
- Simple Rating Questions
- Associate Words to Resumes

- Four Resumes
- Overall rating question
- Peers, Algorithmic Feedback, Crowd Workers
- Rating and open ended questions for each section
- Questions about the challenges of providing feedback
- Demographic Information

- Four Resumes
- Eight Crowd Workers
- Open-ended questions asking for positive feedback
- Questions simulating a recruiter scanning a resume
- Open-ended questions were split up

Trial 1

Trial 2

Trial 3

RESULTS

1. Competitive Analysis

	VMOCK	LiveCareer	REZSCORE	(The Resume Center)	careerbuilder	monster
Account Needed	✓	✗	✗	✗	✓	✓
Free Features	✓	✓	✗	✓	✓	✓
Pay for Additional Features	✓	✓	✓	✓	✓	✓
Algorithmic Feedback	✓	✓	✓	✗	✗	✗
Human Feedback	✓	✓	✓	✓	✓	✓
Immediate Feedback	✓	✓	✗	✗	✗	✗
Resume Writer	✗	✓	✓	✓	✓	✓

After completing the competitive analysis, it was found that while there are many resources that can either help correct or even build a resume from scratch, there are no services that provide comprehensive feedback at a small cost.

2. Survey Results

Trial 1

- Quality of feedback obtained was very poor
- Respondents' answers were only one to two lines long and lacked detail.

Trial 2

- Respondents provided suggestions that were not expected based on resume checklists reviewed in [1, 2, 3].
- One suggestion was asking an applicant to include "software/computer training" in addition to job-specific skills.

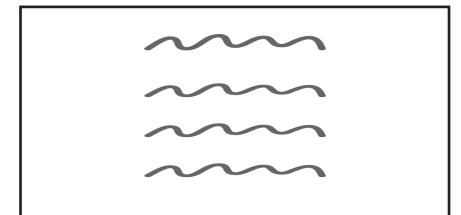
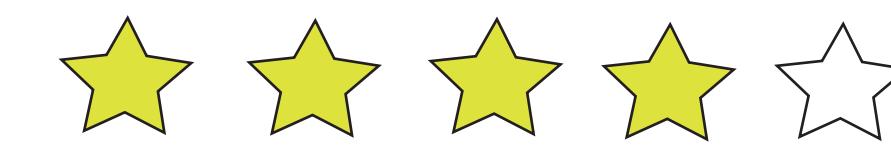
Trial 3

- Crowd workers were forced to give explicit feedback.
- Crowd workers gave more specific answers, such as "...relate experience (manager) to that (graduate school)" for one resume.

Trial three gave the best results, because there were several answers that were very detailed and helpful. Additionally, an explanation for the decrease of the average score from trial two to trial three that was considered was that there were more respondents in trial three, and those who provided feedback that had low scores brought the entire average down.

CURRENT WORK

- Reviewed papers about the PlateMate system [4] and how crowdsourcing was used to evaluate surgical performance [5]
- Two new surveys were deployed to find a workflow foundation for the final product
- Introduced character count verification, modified rating questions, a screening survey, and a question about recommending an online resource for developing social capital.
- One survey requires a crowd worker to evaluate an entire resume and two sections of that resume but no rating questions were asked.
- The other survey requires a crowd worker to rate each section and the format of a resume and then defend their answer.



FUTURE PLANS

Currently, a minimum viable product has been set up to continue research on a system independent of Qualtrics. The survey workflow will be integrated once we achieve high quality results from the surveys. The goal is to develop a fully functioning system where people can submit their resumes and get quality feedback.

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