On the Ethics of Crowd-sourced Research

May 8, 2014

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Amazon’s Mechanical Turk, or MTurk, has become a common method of subject recruitment for social science survey experiments.¹ As crowdsourcing becomes a more regular feature of political analysis, social scientists should consider the ethics of their participation in these largely unregulated markets.

Mechanical Turk is an Amazon.com crowdsourcing tool that allows “requesters”, including businesses and researchers, to easily hire anonymous “workers” to complete brief tasks for a small payment. Of course, workers have the option of refusing to accept a given task if they consider the price too low; research has shown that response rates are slower when payments are smaller.² But unless one believes that market forces cannot be exploitative of workers, the “going rate” is not necessarily fair compensation.

The question of fairness would be less urgent, perhaps, if Mechanical Turk participants were just hobbyists. Indeed, if any given person were participating in only a single survey, the difference between a ten-cent and a thirty-cent inducement would be nearly meaningless, at least to most residents of the United States. And if someone with a full-time job prefers online surveys to video games as an evening’s entertainment, with the money as only a happy side-benefit, that too would seem mostly innocuous.

But Mechanical Turk is different. Most tasks are completed by high-use participants, who spend more than fifteen hours a week working on MTurk.³ Turkers are not, and should not be treated as, one-time participants in a single study. They are workers upon whose labor an increasing percentage of social science research is based. Their extraordinarily low wages, and their lack of collective bargaining power, would be problematic under any circumstance.⁴ But the exploitation is particularly serious given that a sizeable portion of MTurk workers, even those based in the United States, are poor.

⁴ MTurk wages have been estimated at under $2 an hour. For an excellent review of the various ethical problems with Mechanical Turk, see Karen Fort, Gilles Adda, K. Bretonnel Cohen. 2011. “Amazon Mechanical Turk: Gold Mine or Coal Mine?” The Association for Computational Linguistics.
In the course of my ongoing research on American tax opinion, I conducted 49 long-form, open-ended interviews with Mechanical Turk workers. Questions about taxation naturally draw out a great deal of information about the economic background of the respondent, and so the financial situation of each interviewee became quite clear.

Some respondents are indeed economically comfortable people who treat MTurk as an amusement or source of disposable income. I spoke to a federal patent attorney and a retired lieutenant colonel, among other people of high socio-economic status. But a very substantial number of the people I spoke to were not hobbyists. In fact, many of them were barely making ends meet.

Particularly among older MTurk participants, answering surveys appears to be an important, but inadequate, source of income. Among the fifteen people I interviewed over fifty years old, six were surviving on disability benefits. One woman, a 59 year old woman in rural Washington state, worked in a sawmill until her right hand was crushed in an accident. She now supplements her small monthly check with MTurk earnings. Another interviewee, 53 years old and living in Indiana, used to work in a grocery store and as a substitute teacher, before a bad fall broke several bones and left her unable to work. Now, she says,

There are no jobs close to me. There’s no public transportation. I can’t go to work now because I don’t have a car. I’m poverty-stricken. The only thing that I can do is MTurk. I make about $100 per month doing that. I get $189 per month in food stamps.

I also spoke to several young mothers for whom Mechanical Turk was an important source of income. Alexa, from Mississippi, is married with two children; her husband was earning about $9 an hour working full-time, and she is “working two part-time jobs that makes one full-time job.” The family could receive food stamps, Alexa knows, but they have recently chosen not to take the money. Though they are trying to get by without government benefits, the family is living on the edge of poverty; Alexa is waiting for her income tax refund to replace the family’s broken clothes dryer. She, too, uses MTurk to support her family.

Are these instances part of a small minority of MTurkers? The data says no. One study suggests that 19% of U.S.-based MTurk workers are earning less than $20,000 a year, a finding which closely matches my own survey results (18.8%). In my sample, most of those low-earners are not current college students, who might have the safety of a parent’s income. Even removing those partway through a college degree, 12% of my MTurk respondents had a household income below $20,000 a year.

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5 The 49 interviewees were drawn from 406 volunteers in a total survey sample of 1404 respondents. For details of the survey instrument and interview recruitment process, see my working paper, “Mechanical Turk as an Interview Recruitment Tool.”

6 The amount one receives in SSDI benefits is based on one’s previous earnings; the average value is $1,145.70 a month, as of April 2014: http://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/

From an ethical standpoint, moreover, if even a minority of workers rely on MTurk as their primary source of income, social scientists (including myself) are participating in a market that leaves people we study in precarity and poverty.

What can the individual researcher do? One option is to set a “minimum wage” for one’s own research. The federal minimum wage is currently $7.25; among states with a higher threshold, the average is about $8.00. In addition, several states and cities have passed legislation to increase the minimum wage to $10.\(^8\) For a task that takes five minutes, for instance, one should pay each worker 61 cents to surpass the federal minimum wage, 67 cents to pass the $8-an-hour threshold, and 84 cents to surpass the $10-an-hour mark. (Picking a higher rate can help offset the time a Turker loses between HITs.)

It is reasonable to wonder if such rates, substantially above the rate paid by most MTurk requesters, might distort the pool of respondents one receives, and therefore one’s findings. An easy fix – that is also available to anyone who wishes to retroactively increase their MTurkers’ wages – is to increase respondents’ earnings via automatic bonuses after the research is complete.\(^9\)

Of course, paying higher rates costs money. But the cost is less than one might imagine. For a 3-minute survey of 800 people, going from a 20-cent payment to a 50-cent payment costs an additional $240 (plus Amazon’s fees). As a graduate student who has made this calculation and chosen to pay more, I certainly recognize that it is not entirely painless to young and underfunded researchers. And voluntarily increasing the rate of payment for MTurk HITs will not resolve the fundamental inequities of flexible/precarious employment. But it is the right thing to do.

More generally, it is important for the social sciences to create universal best practices for crowdsourcing, as we have done for numerous other research protocols. Grantmakers should require crowd-sourced projects pay respondents at a living wage rate and provide funding at appropriate levels given that commitment. Academic internal review boards concerned with the use of human subjects should create guidelines for the employment of crowd-source workers.

Ironically, many articles that rely on MTurk are examining questions of economic inequality or fairness. If these values are important to study, they are also important to implement in our research practices.

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\(^8\) Updated information available at [http://www.raisetheminimumwage.com/](http://www.raisetheminimumwage.com/)

\(^9\) This is the method that I used to raise the rate paid to my survey respondents to 17 cents a minute, the nominal equivalent of a ten-dollar hourly wage. Code to write a shell script to apply bulk bonuses is available at [http://theddata.harvard.edu/dvn/dv/vanessawilliamson](http://theddata.harvard.edu/dvn/dv/vanessawilliamson). Interviewees received an additional $15 payment.