Crowdsourcing needs

Michael Bernstein
Stanford University
http://crowdresearch.stanford.edu
Join us now at: crowdresearch.slack.com in #meetings

Email crowdresearch@cs.stanford.edu if you need an invite.
Rewind

A recap of where we are
### All HITs

1-10 of 3093 Results

<table>
<thead>
<tr>
<th>Requester</th>
<th>HIT Expiration Date</th>
<th>Time Allotted</th>
<th>Reward</th>
<th>HITs Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Data Gurus</td>
<td>May 23, 2015 (15 hours 59 minutes)</td>
<td>6 minutes</td>
<td>$0.01</td>
<td>36</td>
</tr>
<tr>
<td>Vishwanath Kumar</td>
<td>Aug 1, 2015 (9 weeks 6 days)</td>
<td>60 minutes</td>
<td>$0.03</td>
<td>1</td>
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<tr>
<td>Venue Quality</td>
<td>May 26, 2015 (3 days 2 hours)</td>
<td>5 minutes</td>
<td>$0.01</td>
<td>2</td>
</tr>
<tr>
<td>Amazon Requester Inc.</td>
<td>Jun 2, 2015 (1 week 2 days)</td>
<td>10 minutes</td>
<td>$0.00</td>
<td>1459</td>
</tr>
</tbody>
</table>
Yoel Inbar @yorl · Jun 22
Academics: any experience with @CrowdFlower? Are they a viable alternative to Amazon? #mturkgate

Kristy@TurkerNation @TurkerNational · Jun 23
WTF Amazon mturk?! #mturkgate bit.ly/1N6TLBf uses mTurk

Lisa Williams @williamslisaphd · Jun 23
@amazonmturk raises commission to 40% (from 10%) effective 21 July. #mturkgate, indeed. Let the research exodus commence.

Michael C. Frank and 2 others favored

In 2012, @BrianNosek #mturkgate may be a real opportunity for research community to build an alternative with better research features

Gabriele Paolacci @gpaolacci · Jun 23
That’s right academic friends, mturk commissions will be 4x larger #mturkgate requester.mturk.com/pricing

Amazon Made Its Humans-For-Hire More Expensive

Amazon’s Mechanical Turk is a slightly bizarre service that pays workers to perform repetitive tasks to strangers on the internet, often for very little money. It’s popular among scientists as...
The status quo needs help.

- Today’s platforms are notoriously bad at...
  - ensuring high-quality results
  - producing fair wages and respect for workers
  - making it easy to author effective tasks
  - collaboration and discussion
  - and much more
our goal: create a new standard for crowdsourcing platforms
Our trajectory

- Alpha platform, Daemo
- UIST work-in-progress poster, 60 authors
- White paper
- Knight Data Challenge finalist

- Two Stanford one year paid positions offered to crowd researchers
Our plan

- Full paper submissions to UIST (April 17th) and CSCW (late May)
- Launch the platform!
Milestones

- Milestones are due each Sunday at 8pm Pacific Time

- Between Monday’s meeting and the milestone deadline, collaborate on Slack to tackle the milestones!
  - The milestone will list the relevant Slack channels to use
Milestones last week

• Learn about crowdsourcing
  • Go make $1 on Mechanical Turk
  • Go post a task on Mechanical Turk (we can PayPal you $ if you need)
  • Use our Daemo platform: post tasks & complete tasks
  • Get started with the research literature: read MobileWorks, Flash Teams, and our Daemo white paper
Milestones last week

• Join the engineering test flight group if interested
  • If you have a programming background and want to work in advance of our broader engineering launch…
  • Get our platform running on your local machine
  • (And there are some GitHub issues if you’d like to try developing features)
Keeping up
How to track Slack

• If you’re overwhelmed, follow #announcements. Everything important will go there or get cross-posted.

• Participate in other channels to help debug, share ideas, and get feedback

• Please don’t abuse @channel
Clarification on teams

- You don’t need a team! Only if you desire and want to work with others.
Today

• Reflecting on Milestone 1 submissions
• Needfinding primer
• Launching our needfinding week
This is not a competition.

- Seeking out feedback is great, but please don’t annoy your peers trying to get more feedback.

- We look at many of your milestones, including ones not top ranked, and will invite folks we think are great.

- However, you need to submit to Meteor if you’d like to have a shot of getting invited to join the hangouts live.
Milestone 1
Workers: uncertain work

- It takes a long, long time to search for good tasks

- It’s difficult to match tasks to your skill set
  - “Tasks can be quite boring if you don’t find one according to your interests.” – @amitoj and @diksha, Team Spontaneous

- It’s very difficult to break in
  - “My experience on [Microwork] was quite bad as there were many tasks for which I did not qualify” – @sanjiv, Team xndr
Workers: Low payment and broken review

• Not fair payment
  • “After a while, I realized how little money I was receiving, as I was only halfway to a dollar and was exhausted.” – @kushagro123

• No way to negotiate wages
• The only feedback was what a (biased) requester thought of your work
Requesters: low quality results

- No mechanism to ensure task quality, and no iterative process between the worker and requester
  - “There are some workers who don’t care about the quality and just want to do the minimum amount of work possible; they didn’t even read the instructions.” – @dmajeti, @alexstolzoff, @clao, @tgotfrid, Team westcoastfcr

- “I felt bad rejecting all the work someone did, so I ended up approving one mediocre HIT” – @dmajeti, @alexstolzoff, @clao, @tgotfrid, Team westcoastfcr
Requesters: authorship

- Some found it very easy to use the pre-built templates
- Others found it difficult to use and inflexible
In a nutshell

@angelfu and @vijaym123,
Team Lightsaber
Research engineering
#engineering-deliver

January 12th

**delo** 1:04 AM  🌟
uploaded and commented on an image: [Screenshot from 2016-01-12 03:02:41.png](image)

Created first task on local machine

**deepank09** 1:16 AM
joined #engineering-deliver. Also, @sarmatejas joined, @cgnivo_saha joined, @naim08 joined, @shu

**afreen** 3:13 AM
uploaded and commented on an image: [Screenshot from 2016-01-12 at 4.38.06 PM.png](image)

"Finally got it up. YES!"

**farheen** 7:53 AM
joined #engineering-deliver

**dmorina** 8:05 AM
Well done, folks 👍 (edited)

**michaelbernstein** 8:59 AM
joined #engineering-deliver

**beingcooper** 9:29 AM
uploaded and commented on an image: [Daemo.png](image)
Thanks and next steps

- Thank you to everyone who helped debug on boarding issues!
  - @sehgalvibhor, @manojpandey, and many more

- This week, work through the issue list, join relevant channels on Slack e.g., #engineering-profile. Work with the folks in these channels to make PRs.
Other engineers: soon!

- Thanks, test flight group!

- We will be onboarding everyone else to engineering in a couple weeks. Looking forward to it!
Needfinding Crash Course
Goal: Synthesize needs

- Needs are going to be the bedrock of our brainstorming.
- Requesters need...
  - For example, “requesters need to be able to trust the results they get”
- Workers need...
  - For example, “workers need to find high-quality work easily”
How this is research

• It’s easy to invent random gizmos and algorithms, then call it research. But it’s terrible research.

• The way to have impactful research is to solve problems that are important to people.

• To do that, I need everyone here to understand what workers’ and requesters’ most important needs are.
Kickstart yourself

- Please watch Scott Klemmer’s 15min Coursera lecture later at: http://hci.st/needfinding
Five goals of needfinding

• What do people do now?
• What values and goals do people have?
• How are these particular activities embedded in a larger ecology?
• Similarities and differences across people
• ...and other types of context, like time of day
Tricks

- Pay attention to *all* the artifacts
- Look for workarounds and hacks
- Errors are a goldmine
Talking to people

• Avoid leading questions! ("Would you like AMT to be more easily searchable?")

• Remember that people have trouble getting out of their own worldview. This is called functional fixedness. (Don’t ask: “How could we make AMT better for you?”)
Needs are verbs, not nouns

- Nouns assume the solution: “She needs a ladder.”
- Verbs open up many possible solutions: “She needs to grab all her items before leaving.”
Observation vs. Interpretation

• A common error is to mix up *what you see* with *what you interpret*
• Start with what you see:
  • What’s the environment or activity that’s framing this behavior?
  • What’s out of frame that might be important?
• Capture details! You’ll need them later

• Then interpret, why are you seeing what you see?
Interpretation

- Ask yourself *why* you think something happened
- Suggest a reason
- Ask yourself why that reason exists and matters
- Recurse…
- Aim to produce needs
Milestone 2
Worker and requester panel

- A chance for you to ask questions to big time workers and requesters on Mechanical Turk
- Tomorrow, January 19th, 6pm Pacific
- Google Hangout on Air
Before then...add questions!

• Add them at: hci.st/panelQs
Needfinding part 2: resources

- Resources to highlight worker issues:
  - CHI papers: Turkopticon + Being A Turker
  - Worker resources: try Turkopticon, possibly introduce yourself on worker forums and Reddit /r/mturk + /r/HITsworthturkingfor

- A few resources to highlight requester issues:
  - Blog posts by Panos Ipeirotis
  - CHI paper: crowdsourcing user studies on AMT
  - Reddit /r/mturk requester issues — look for errors!