Research directions

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<rewind>
Needfinding

• We watched panels of experts workers and requesters talk about their practice
• Workers need to find tasks that result in payment and maintain reputation, by identifying reputable requesters
• Requesters want to easily create HITs, get them accepted, and receive high quality results…all quickly
Brainstorming

- How Might We? questions
- Dark horse ideas
Crowdsourcing research

- History
- Crowd algorithms
- Incentives and quality
- Crowd-powered systems
- AI for HCOMP
- Complex work
Milestone 3

- Brainstorm research ideas to address workers’ and requesters’ needs
- Goal: synthesize them today to point more specifically toward our next directions
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Today

- Themes in your research proposals
- Focusing and flaring
- Milestone 4
- Overview of crowdsourcing research
We do research in the open.

- We share ideas.
- This is how we produce the best research!
- We win together, or not at all.

- The way crowd research works is that we share, discuss, debate, and iterate together.
- If anyone mistakenly takes credit, we have records in Slack, Wiki, etc.
Foundations

- A new high-level approach to organizing our crowd platform to improve trust and power
- Examples:
  - Workers review all tasks before posting and make all payment decisions
  - Workers organize themselves into collectives

Features

- Ideas which improve the strength of any platform but aren’t holistic or don’t give it a high-level purpose
- Examples:
  - Task recommender systems
  - Mediation strategies
  - Specific feedback mechanisms
Crowd Admins & Daemo Governance

• Crowd Admins: work with you to figure out how to make crowd research succeed.

• Daemo Open Governance:
  • Daemo issues, not about the crowd collaboration process
  • Deploying the guild structure on Daemo
  • Guild evaluation based on real Workers and Requesters using the platform, posting tasks, and discussing the issues about Daemo governance (100 tasks per week Trigger)
Themes

- Task authorship
- Task ranking
- Open gov
I. Task Quality Design

- New pricing model
  - Requesters pay more for experienced worker to ensure high quality results OR take a risk and pay less for less experienced worker who might still give ‘good’ results

- Analyze failure
  - If a person doesn't complete a task, find task properties that led to failure (language, questions, quantity, …)

- More content-rich task creation
  - Tools to let requesters create graphic-rich instructions for tasks with better styling. ~@nalinc
2. Worker / requester matching

- **Account for worker interest in Boomerang** ~@vrida1994, @witty123
- **Add filters to task feed** ~Team SneakyLittleHobbitses
- **Subscriptions**
  - Worker can "subscribe" to a requesters and notified when ever requester posts work ~@vinyoshy
  - Requesters can trusted workers to "early access" other subscribers
- **Rate workers by skill category** ~@dhankie, @dineshd
  - Workers might have higher rating in one category than another. This protects
  - The requester can find workers with high ratings in a specific category
  - Workers reputation overall reputation is more protected because a requester can only rate according to a specific category ~Team Duka
3. Governance

- Committee moderate community, review ratings, and task rejections
- Insurance System and Guilds
  - Negotiation of wages, work rules, complaint procedures, rules governing hiring, firing and promotion of workers, benefits, workplace safety and policies. ~Team EU
- System clearinghouse
  - Requester and worker go through an intermediary, who holds payment until work is completed and task is verified ~@atinmittra
- A Holacracic World Team Despicables
  - Address each entity personally and with a way to address the global concerns, all entities in the system do not feel like just computers, but actual human beings
- Groups
  - Group workers who are “working on the same task for the same requester”
  - Greater sense of community, security, and connection between requesters and workers
Milestone 4: Write a paper intro

- We’ve synthesized some of the most popular ideas for each area. Grab at least one area, and an idea (not necessarily yours), and develop it further into a concrete research proposal!
Outline of a systems intro

• What’s the problem you’re solving?
  • *Specific* problem! Not just “crowdsourcing”. More like how trust and power are broken.

• Related work
  • What else have people tried, and why haven’t they worked?

• What’s the high-level insight?
  • This is the general idea, and what other platforms would want to replicate

• What’s the system?
  • How might this idea look or work as a running system?
Outline of a science intro

• What’s the phenomenon you’re interested in?
  • *Specific* phenomenon! Not just “crowdsourcing”. More like what makes teams of workers effective.

• The Puzzle
  • What observation can’t we account for yet?

• The experimental design
  • Who are you recruiting? What are the conditions? What are you measuring? What statistical procedure will you use?

• The result
  • What (do you imagine) would happen?
Examples

- Guilds
- Authoring effective tasks
- Task feed ranking
Usability Test Flight Ideas
UX Improvements

- **Terminology / Icons**: e.g. “Why does it say fork instead of copy?”
  - Use universally understood terms like “Copy” to reduce ambiguity
UX Improvements (cont.)

- **User understanding**: e.g. “How have tasks been ordered?”
- Sort task by payment, recent, alphabetically
- Filter by preferences
New features

- Add a home page
- Integrate external scripts such as Turkopticon
  ~@raymondsum3
- Forum
- Chat
New features (cont.)

Task difficulty

Anonymous, peer feedback

Mocks created by @leonardykriskiantop
Where we are going
So far: UIST

- With UIST, we showed that we can take on the world, and that crowd research is producing real results.
  - UIST is a top-tier research venue
  - Work-in-progress papers are ~50% acceptance rate and are mostly an advertisement that we’re working on something
  - It is “non-archival” and does not formally count as a top-tier publication, just an indication that good work will likely lead to one
Today: Platform is online

- Task creation, including Prototype Task foundation
- Task feed and task submission
- Task review

- Our first workers (skunkworks)
- Our first work (skunkworks)
April 13: UIST paper
Late May: CSCW paper

- This is the outcome that will be central to those of you who want to apply to graduate schools
- This outcome proves to the world that we exist, and that we matter. This is the launchpad to our success.
Growing

• We agree that the project is doing research currently.

• However, we agree that as the platform gets real work on it (which will be hard to do, but very rewarding!), it will need to reconsider its position.

• At that point we should transition into an organization.
  • Let’s retain the research DNA even after this point
Let’s make a trigger

- A trigger will be our formal criteria for beginning that transition.
- We want something that is a strong indicator we are achieving liftoff and will succeed.

- **Our trigger: 100 projects completed per week**
  - Fine print: from at least 15 different requesters — this can’t just be just Rajan spending his savings to post work to the platform
Design test flight
Design chat/message platform

- Join a hangout with Michael on Wednesday morning!
  9am Pacific