



MOTIVATION

High-quality human data is essential for dialog system development

- Crowdsourcing platforms such as Amazon Mechanical Turk (AMT) are used to create Human Intelligence Tasks (HITs)

Collecting high-quality data is **challenging**

- Learning curve for HIT creation
- Technical Issues
- Instructional Issues
- Payment Inadequacy

DIALCROWD 1.0

Allowed requesters to create HITs **efficiently**

- Instead of HTML, requesters fill out a form
- DialCrowd automatically generates a clean interface for the workers

Effective in **reducing the time** spent by requesters

- user study participants rated DialCrowd 4 out of 5 for usefulness

Adaptable

- Can be used with any crowdsourcing platform

TASK CREATION TOOLS

Clarity

- Instructions
- Examples and counterexamples with explanations
- Worker feedback

Category	Examples
transactions	how much did my last purchase cost because... i need to see all visa purchases for march because...

Counterexamples
help me transfer \$x from credit to debit because... how much do i have to pay for my cable bill because...

It is not asking for information, so it should not be classified as transactions. Instead, it should be classified as "transfer".

QUALITY DETECTION TOOLS

Identifying low quality data

- Duplicated tasks
- Golden data

Identifying Outliers

- Time spent
- Patterns
- Agreement

ADDITIONAL TOOLS

Tools

- serializable configuration
- flexible appearance
- calculator of worker payment
- calculation of number of tasks to deploy
- built-in consent form upload

* Time (minutes/HIT) Ⓞ:

To estimate the time required for a HIT, you can ask your colleagues spend.

* Payment (USD/HIT) Ⓞ:

The recommended minimum payment is 2.50.
The workers need a living wage \$15/hr to meet their basic needs.

Templates

- Interactive: interact with a dialog agent
- Intent classification
- Entity classification
- Quality annotation: assess the quality of a dialog system's response given a context and response pair

CONCLUSIONS

- DialCrowd is available at cmu-dialcrowd.herokuapp.com
- Intent classification template is available through ParlAI