Mechanical Turk

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What is Mechanical Turk?

• A Web Service of Amazon
• An Online Marketplace
  – For work that requires human intelligence
    • Image recognition
    • Speech processing
    • Subjective evaluation
    • Rendering an opinion
    • ...
  – Time saving, cheap, easy to scale...
How does Mechanical Turk Work?

Requester

Worker Qualifications

Human Intelligence Tasks (HITs)

Completed HITs

Workers
What does Requester Need to Do?

- Get an Amazon Account
- Fund the Account
- Design a HIT Template
- Test the HIT Template
- Publish HITs
- Review Results
Design a HIT Template

• 12 common HIT templates available
• We can design our own HITs based on these HIT templates
• HIT design steps
  – Step 1: set HIT properties
  – Step 2: design HIT layout
  – Step 3: preview the HIT
Step 1: Set HIT properties

Create a new HIT Template

Specify the properties that are common for all of the HITs created using this template.

**Enter Properties**

| Template Name: Blank Template |

**Describe your HIT**

**Title**: Default Title

*Describe the task to workers. Be as specific as possible, e.g. "answer a survey about movies"; instead of "short survey", so workers know what to expect.*

**Description**: Description

*Give more detail about this task. This gives workers a bit more information before they decide to view your HIT.*

**Keywords**: keywords

*Provide keywords that will help workers search for your HITs.*

**Working on your HIT**

**Time allotted per assignment**: 1 HOURS

*Maximum time a worker has to work on a single task. Be generous so that workers are not rushed.*

**HIT expires in**: 7 Days

*Maximum time your HIT will be available to workers on Mechanical Turk.*

**Worker must meet the following criteria to work on these HITs:**

**HIT approval rate (%)**: greater than or equal to 95

**Required for preview**: (what's this?)

*Tip: You can limit your HITs to workers with a certain approval rate. An approved rating of 95% or better is considered good.*

**Paying Workers**

**Reward per assignment**: 0.05

*Tip: Consider how long it will take a worker to complete each task. A 30 second task that pays $0.05 is a $6.00 hourly wage.*

**Number of assignments per HIT**: 1

*How many unique workers do you want to work on each HIT?*

**Results are automatically approved in**: 7 Days

*After this time, all unrefered work is approved and workers are paid.*
Step 2: Design HIT layout

Create a new HIT Template

Use the HTML editor below to design the layout of your HIT. This layout is common for all of the HITs created with this template. You can

Enter Properties  Design Layout  Preview and Finish

Template Name: Blank Template  This name is not displayed to workers.

Frame Height: 400 Height in pixels of the frame your HIT will be displayed in to workers. Adjust the height appropriately to minimize scrolling.

Enter the Title of Your HIT - this gives workers an idea of what the task is

Enter instructions for your HIT. It's a good idea to:

- Be sure to be as specific as possible in your instructions so that there's no confusion. For example, when asking workers to extract text from an image, spaces and punctuations.
- Include an example of a right answer, and a wrong answer.
- Clarify what you expect if the HIT is not doable because of missing data or other problems.

1. This is an example of a multiple choice question, select only ONE of the following:

- [ ] Choice 1
- [ ] Choice 2

2. This is an example of a free text answer, use this when you only need workers to enter a line of text:

   

3. This is another example of a multiple choice question, select only ONE of the following. A drop down list saves more screen real estate than radio buttons:

- [ ] Choice 1
Step 2: Design HIT layout - HTML

Create a new HIT Template

Use the HTML editor below to design the layout of your HIT. This layout is common for all of the HITs created with this template. You can:

1. Enter Properties
2. Design Layout
3. Preview and Finish

Template Name: Blank Template

Frame Height: 400

Enter the Title of Your HIT - this gives workers an idea of what the task is
Enter instructions for your HIT. It's a good idea to:

- Be as specific as possible in your instructions so that there's no confusion.
- Ask workers to type the text exactly as shown in the image including capitalizations, spaces and punctuation.
- Include an example of a right answer, and a wrong answer.
- Clarify what you expect if the HIT is not doable because of missing data or other problems.

1. This is an example of a multiple choice question, select only ONE of the following:

```
<table cellspacing="4" cellpadding="0" border="0">
  <tbody>
    <tr>
      <td align="center"><input type="radio" name="Q1" value="Choice1" /></td>
      <td><span class="answertext">Choice 1</span></td>
    </tr>
    <tr>
      <td align="center"><input type="radio" name="Q1" value="Choice2" /></td>
      <td><span class="answertext">Choice 2</span></td>
    </tr>
  </tbody>
</table>
```

2. This is an example of a free text answer, use this when you only need workers to enter a line of text:

```
<p><input type="text" name="Q2" id="Q2" size="20" /></p>
```
Step 3: HIT preview

Enter the Title of Your HIT - this gives workers an idea

Enter instructions for your HIT. It's a good idea to:

- Be sure to be as specific as possible in your instructions so that there's no confusion. For example, when asking workers to provide correct capitalization, spaces, and punctuation.
- Include an example of a right answer, and a wrong answer.
- Clarify what you expect if the HIT is not doable because of missing data or other problems.

1. This is an example of a multiple choice question, select only ONE of the following:

   - Choice 1
   - Choice 2

2. This is an example of a free text answer, use this when you only need workers to enter a line of text.

   [Blank]

3. This is another example of a multiple choice question, select only ONE of the following. A drop down list saves more space for the Worker to select the answer they want.

   [Choice 1]

4. This is an example of a question where you can select one or more of these options:

   [selection 1]
   [selection 2]
   [selection 3]
   [selection 4]
Test a HIT Template

• HIT Test Website available
  – To make sure workers can complete your task without any trouble.
  – If you design your own HIT template, you do need this.
## Publish HITs

**Faceted Feedback - NYT**

<table>
<thead>
<tr>
<th>Batch Name:</th>
<th>‘Faceted Feedback - NYT’ @ 28 Sep 13:52</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Select good descriptions for news queries</td>
</tr>
<tr>
<td>Batch expires in:</td>
<td>5 Days</td>
</tr>
<tr>
<td>Results are automatically approved after:</td>
<td>5 Days</td>
</tr>
</tbody>
</table>

### HITs

| Number of HITs in this batch: | 1 |
| Number of assignments per HIT: | $x \times 1$ |
| Total number of assignments in this batch: | $1$ |

### Cost

| Reward per Assignment: | $5.00 |
| x $1$ (total number of assignments in this batch) |
| Estimated Total Reward: | $5.00 |
| Estimated Fees: | $0.500 |
| Estimated Total Cost: | $5.500$ (this is the amount that will be deducted from your Available Balance) |

| Your Available Balance: | $0.500$ (before clicking "Publish HITs") |
| Your Projected Balance: | $5.000$ |

[Back] [Publish HITs]
Review a Worker Result

- Requester determines to approve or reject a result from a worker after reviewing it.
- A worker won’t get the payment unless his/her result is approved by requester.
- A worker’s approval rate determines whether he/she could work on a HIT task.
  - Requesters can put a limit on workers’ approval rate to avoid careless workers.
Summary

• Good choice for user involvement research
• Efficient
  – Hundreds of thousands of workers waiting to serve you and make money.
  – Get results in several hours after publishing your HIT.
• Acceptable results
  – Make your questions very clear
  – Put a limit on worker qualification
  – Reject results of careless workers
Websites

• Mechanical Turk Website
  – http://www.mturk.com/
  – http://requester.mturk.com

• HIT Test Websites
  – http://requestersandbox.mturk.com
  – http://workersandbox.mturk.com