

CS 2310 Fall2013 Project Proposal

Crowdsourcing using Slow Intelligence System

Ka Wai Yung

Motivation:

Crowdsourcing is the practice of dividing a big task into subtasks, and ask the public to complete the subtasks so as to finish the big task. By improving the solution quality of each subtask, the solution quality of the big task can be improved. In general, slow intelligence system (SIS) can come up with higher quality solution in the long run. That is because slow intelligence system often enumerates more possible cases. By applying the concept of SIS, crowdsourcing allows the public to enumerate more cases and eliminate poor subtask solutions. The **goal** is to improve solution quality.

Challenges:

1. How to ensure that the solution quality is better if a subtasks is re-done?

It is possible that participants offer poorer solutions or the same solution for a subtask. We want to avoid that to happen. We do not want to purely enumerate useless cases as there is always incentive constraint for crowdsourcing.

Possible solution:

- offer evaluation metric
- offer previous subtask solutions
- only accept better solution

2. Given the incentive constraint, how to prioritize subtasks?

People always repeat subtasks that are familiar with if the incentive for every subtask is the same. That makes the solution quality of some subtasks never improve.

Possible solution:

- unfinished subtasks always have the highest priority.
- finished subtask with poor solution quality has higher priority.

Deliverables:

1. A formulation and framework for crowdsourcing using SIS.
2. Simulation using the SIS testbed.

Milestone2:

Come up with a formulation and framework for crowdsourcing using SIS.