

Quality Control in Open-Ended Crowdsourcing: A Survey

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Problems & Ideas

- Challenges of quality control in open-ended crowdsourcing:
 - Dynamic and multidimensional worker abilities
 - Complex task structure: e.g., containing interdependent subtasks
 - Large to infinite answer spaces and multiple acceptable answers
- Ideas: Introduces a holistic view of the quality model with a two-tiered framework.

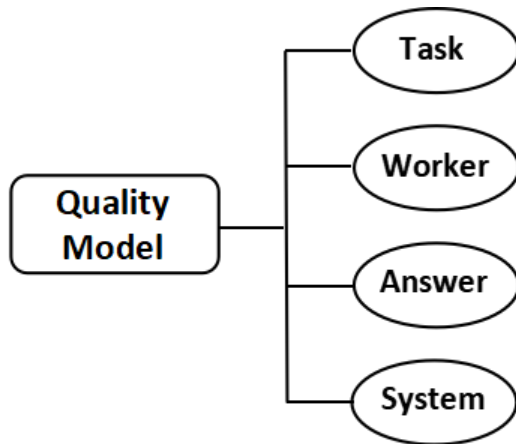


Figure2 (a): Tier1: key aspects in quality model

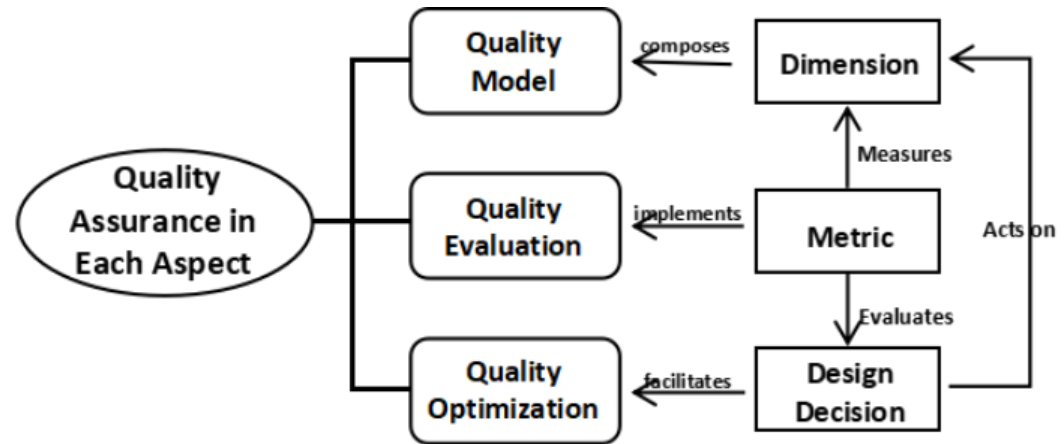
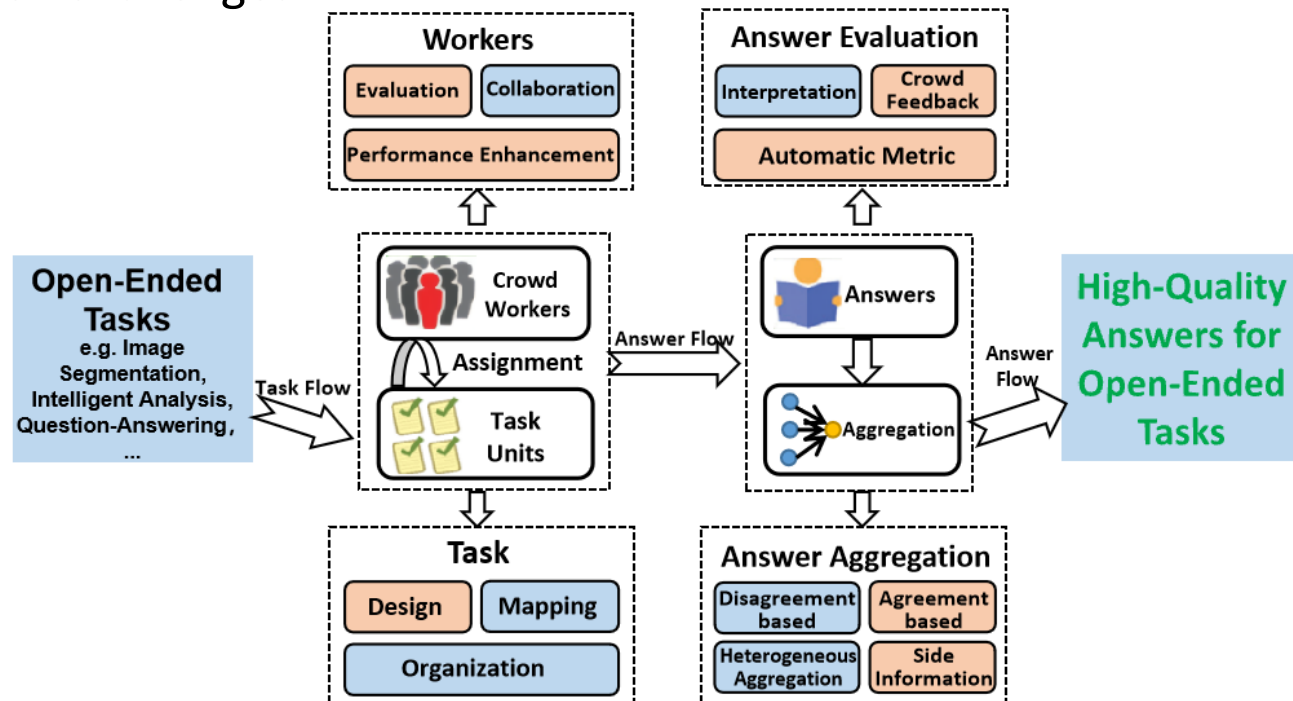


Figure2 (b): Tier2: internal structures of the quality control framework in each aspect

Tier 1 provides a holistic view of the quality model encompassing key aspects: task, worker, answer and context. Tier 2 (as shown in the figure) introduces 'quality dimensions', 'evaluation metrics', and 'design decisions' and their interactions in each aspect.

Main Contributions

- Contributions:
 - A definition of open-ended crowdsourcing and the scope
 - An introduction to representative open-ended crowdsourcing tasks and the challenges in quality control
 - A two-tiered framework of all the related works and a systematic review
 - An in-depth discussion of research status and identification of current research challenges



The execution process and algorithm framework of crowdsourcing quality control: highlight the quality control challenges faced by open-ended crowdsourcing, illustrates the quality control issue through task flow and answer flow, emphasizing the necessity of contextual dependencies and dynamic optimization in open-ended tasks, thereby providing intuitive support for method design and quality validation.