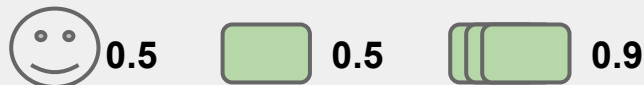# How to optimize the number of task replicas required to achieve a predefined credibility level in the result?

Our Strategy for Volunteer Thinking Projects
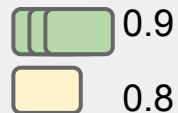
Credibility Measures

Volunteer	Result	Group of Results
🙂 0.5	▭ 0.5	▭▭ 0.9

Replicas Generation

Group of Results

▭▭ 0.9

▭ 0.8

More replicas?

Replicas Routing

New Replica

▭ → Which volunteer?

🙂 0.5

🙂 0.8

Our credibility-based strategy reduces the number of replicas in several scenarios!!!

The follow-up

Ponciano, Lesandro; Brasileiro, Francisco. "**Agreement-based credibility assessment and task replication in human computation systems.**" *Future Generation Computer Systems,* 87 (2018): 159-170. DOI: 10.1016/j.future.2018.05.028

Ponciano, Lesandro; Brasileiro, Francisco; Gadelha, Guilherme; Furtado, Adabriand. **Adaptive Task Replication Strategy for Human Computation**. In: 2014 Brazilian Symposium on Computer Networks and Distributed Systems (SBRC), 2014, Florianopolis. p. 249-257. DOI: 10.1109/SBRC.2014.30

PONCIANO, Lesandro; Brasileiro, Francisco; Gadelha, Guilherme. **Task Redundancy Strategy Based on Volunteers' Credibility for Volunteer Thinking Projects**. In: AAAI Conference on Human Computation and Crowdsourcing, 2013, Palm Springs. p. 60-61.