Quick Trigger on Stack Overflow: A Study of Gamification-influenced Member Tendencies

Yong Jin  Xin Yang  Raula G. Kula  Eunjong Choi  Katsuro Inoue  Hajimu Iida

Nara Institute of Science and Technology, Japan
Osaka University, Japan

MSR 2015 Mining Challenge
Gamification in Stack Overflow (SO)

User Information

14,355 REPUTATION

Reputation Score

Reward-driven gamification

For more info: http://stackoverflow.com/help/whats-reputation
Gamification in Stack Overflow (SO)

User Information

Vote posts

Reputation Score

Reward-driven gamification

For more info: http://stackoverflow.com/help/whats-reputation
Gamification in Stack Overflow (SO)

User Information

Vote posts

Accept answers

Reward-driven gamification

For more info: http://stackoverflow.com/help/whats-reputation
Quick Triggers

Western Movies

Q&A website
Quick Triggers Win Reward

Western Movies

Q&A website
Our Concerns

- Just for high score
  - Answer quick, in order to get more score

- We want to know:
  - How many Quick Triggers?
  - How about the quality?
  - Do they only answer easy questions?
Research Questions

• RQ1: Is Rapid Response (RR) widespread among community members?

• RQ2: Are most Accepted Answers (AA) related to RR?

• RQ3: Does member tagging tendencies change with RR?
Approach

Defined Metrics

- Response Time (RT)
- Ratio of Accepted Answer (AA)
- Tag Score (TS)

Analysis with R

- Distribution of RT
- Distribution of NRR : RR
- Relation between AA and RR
- Distribution of TS
RQ1: Is RR widespread among community members?

RR is not widespread among the community. 92% members have more NRR than RR.
RQ2: Are most Accepted Answers (AA) related to RR?

No direct relationship between AA and RR
RQ3: Does member tagging tendencies change with RR?

Tagging tendencies change in RR posts

*p-value < 0.05
Discussion

- **Threats to validity**
  - The threshold that using 80-20 rule
  - Dataset is not big
- **Future work**
  - Quality metrics between RR and NRR
  - Longer period of dataset.
Conclusion

**Gamification in Stack Overflow (SO)**

- User Information
- Votes posts
- Accept answers

- Reputation Score

**Our Concerns**

- Quick Triggers in Western Movies
- Quick Triggers in Stack Overflow

**RQ1: Is RR widespread among community members?**

- 50% members have more RR than RR

**RQ2: Are most Accepted Answers (AA) related to RR?**

- No direct relationship between AA and RR

**RQ3: Does member tagging tendencies change with RR?**

- Tagging tendencies change in RR posts
Nothing wrong with shooting, as long as the right people get shot.

— Clint Eastwood