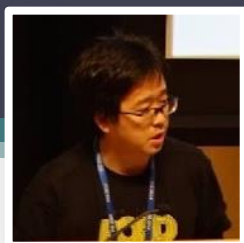


# Quick Trigger on Stack Overflow: A Study of Gamification-influenced Member Tendencies



**Yong Jin**



**Xin Yang**



**Raula G. Kula**



**Eunjong Choi**



**Katsuro Inoue**



**Hajimu Iida**

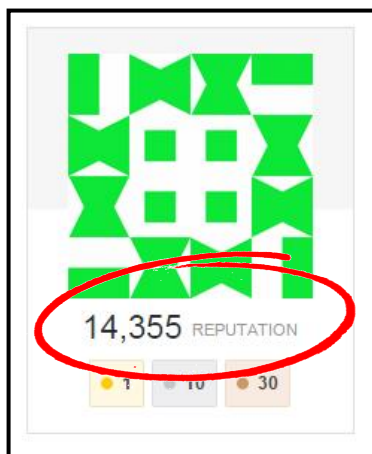


**MSR 2015 Mining Challenge**

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

# Gamification in Stack Overflow (SO)

## User Information



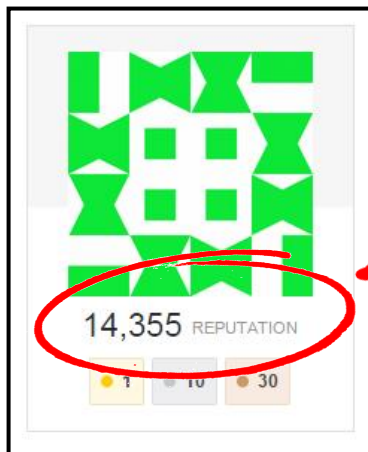
## Reputation Score

## Reward-driven gamification

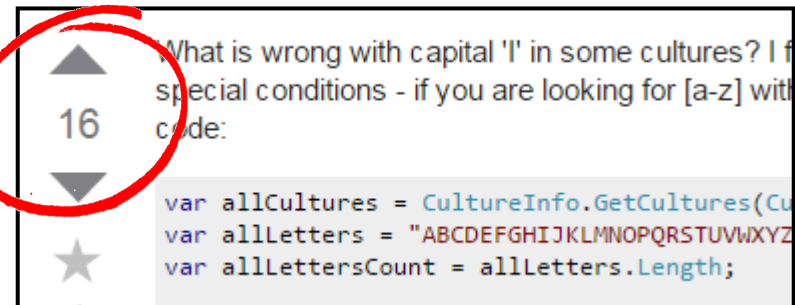
For more info: <http://stackoverflow.com/help/whats-reputation>

# Gamification in Stack Overflow (SO)

## User Information



## Vote posts



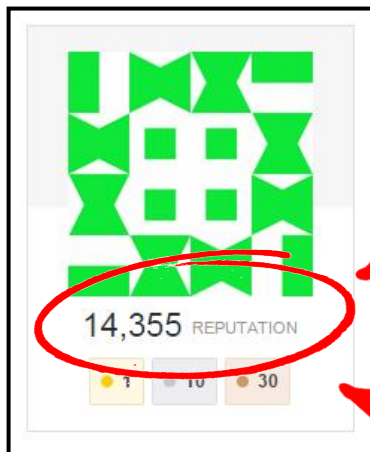
Reputation Score

**Reward-driven gamification**

For more info: <http://stackoverflow.com/help/whats-reputation>

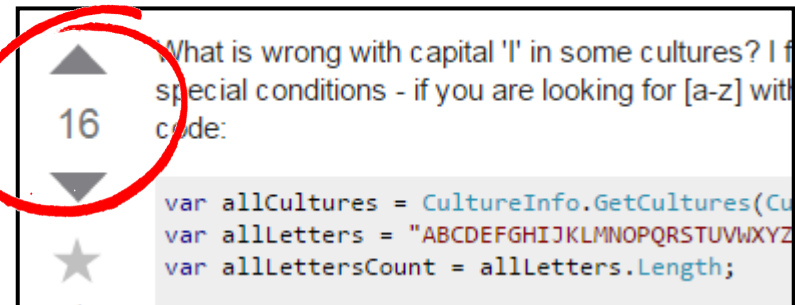
# Gamification in Stack Overflow (SO)

## User Information

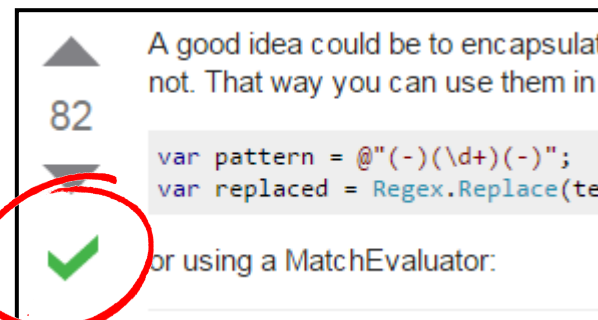


## Reputation Score

## Vote posts



## Accept answers



## Reward-driven gamification

For more info: <http://stackoverflow.com/help/whats-reputation>

# Quick Triggers



**Western Movies**

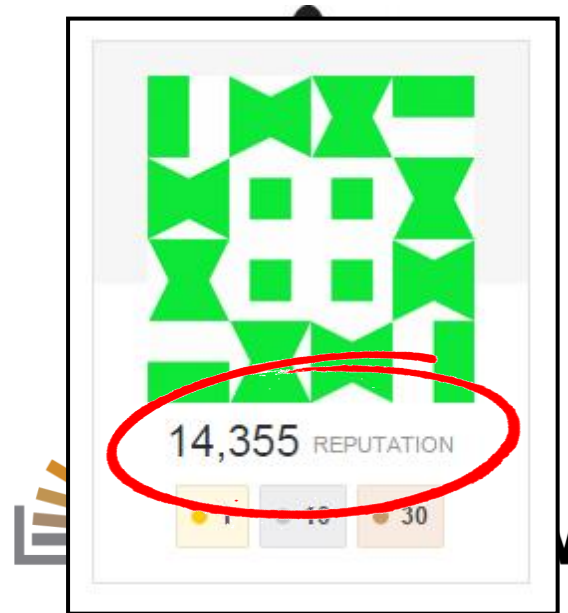


**Q&A website**

# Quick Triggers **Win Reward**



**Western Movies**



**Q&A website**

# Our Concerns



**Be quick or  
be dead**



- **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

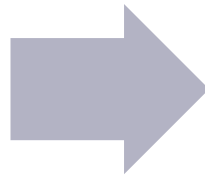
- **RQ1: Is **Rapid Response (RR)** widespread among community members?**
- **RQ2: Are most **Accepted Answers(AA)** related to RR?**
- **RQ3: Does member **tagging tendencies** change with RR?**



# Approach

## Defined Metrics

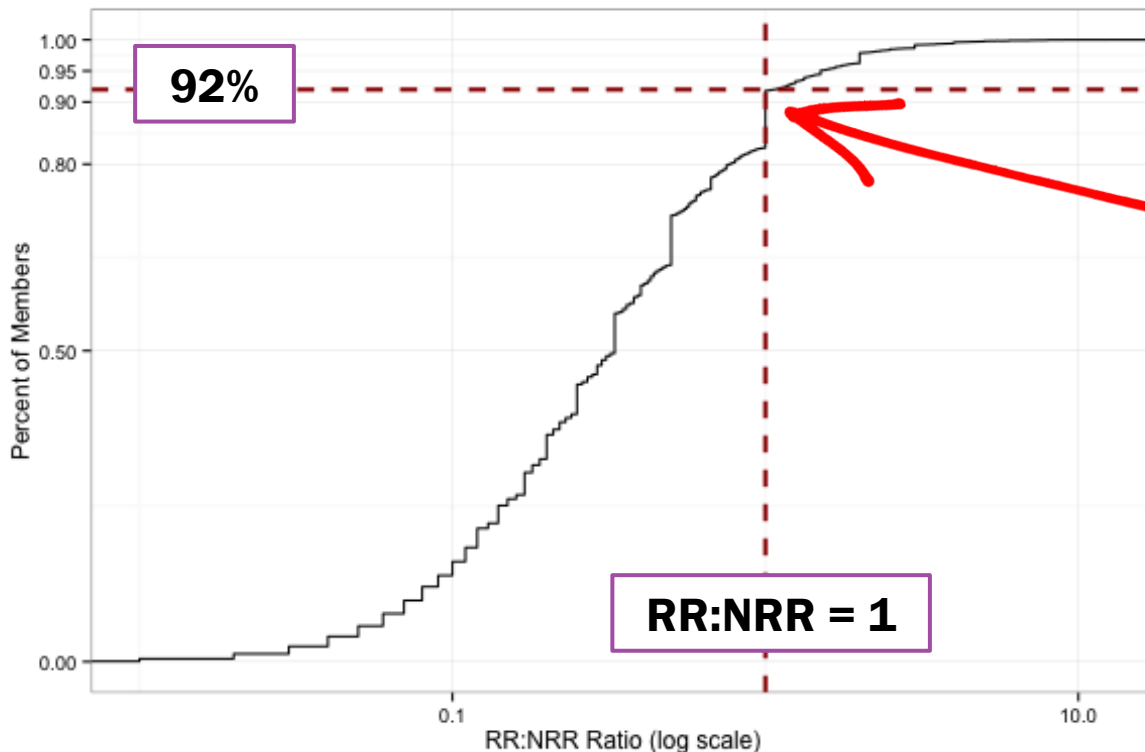
- Response Time (**RT**)
- Ratio of Accepted Answer (**AA**)
- Tag Score (**TS**)



## Analysis with R

- Distribution of **RT**
- Distribution of **NRR : RR**
- Relation between **AA** and **RR**
- Distribution of **TS**

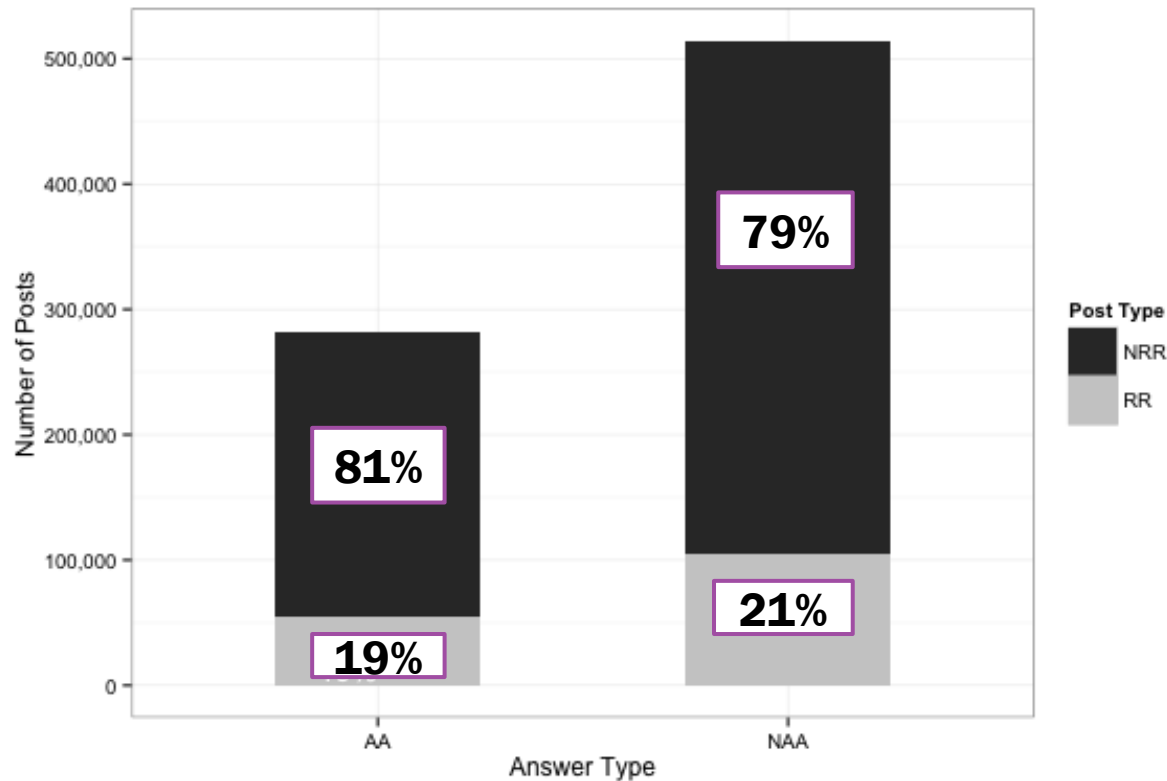
# RQ1: Is RR widespread among community members?



92% members  
have more NRR  
than RR

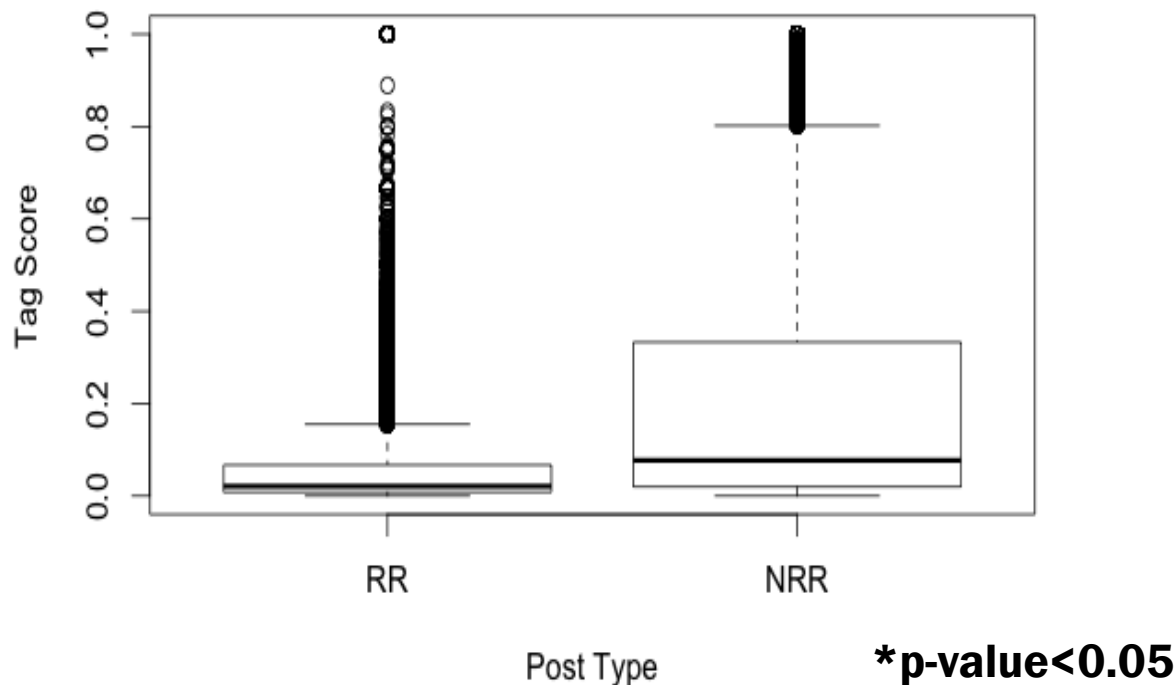
***RR is not widespread among the community***

## 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***


# 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**



14,355 reputation

**Reputation Score**

**Vote posts**

▲ 16

▼ 1

★

**Accept answers**

▲ 82

▼ 1

✓

+/-

+75

Reward-driven gamification

For more info: <http://stackoverflow.com/help/what-is-reputation>

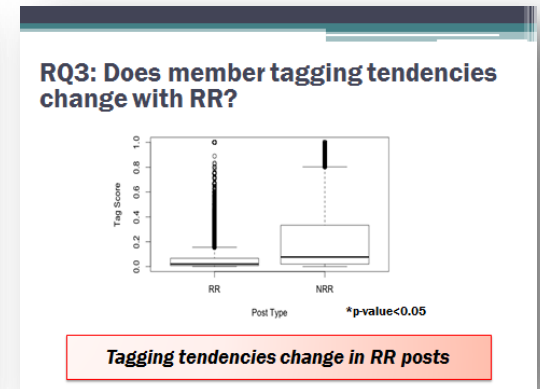
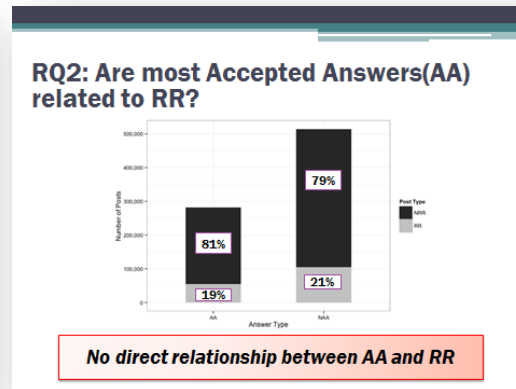
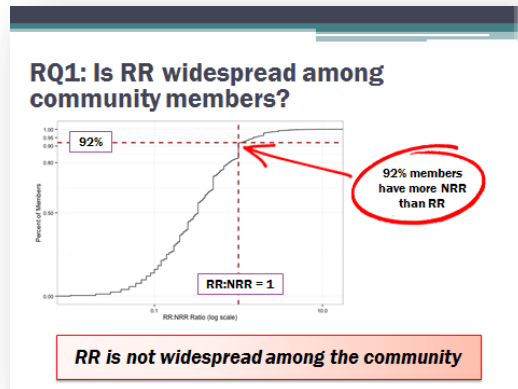
### Our Concerns



**Quick Triggers  
in Western Movies**



**Quick Triggers  
in Stack Overflow**





**Nothing wrong with shooting, as long as the right people get shot.**

**— Clint Eastwood**