

How effective is gamification in promoting user engagement?

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Introduction

Deterding et al. (2011) define “*gamification* as the use of game design elements in non-game contexts.” [Stack Overflow](#) is a question and answer website designed for programmers. Stack Overflow is gamified as follows:

1. A user earns reputation points when another user votes on her posts (5 points when a questions is voted up, 10 points when an answer is voted up, 15 points when an answer is accepted, and 2 points when an edit is approved).
2. As a user earns reputation points she unlocks privileges on the site. For instance, a user must have at least 15 reputation points to vote up a question or answer. A list of all privileges is available [here](#).
3. Users are awarded badges for special achievements. One receives the “Informed” badge by reading the entire [tour page](#). A list of badges is available [here](#).

Grant and Betts (2013) present empirical evidence that three of the badges awarded for various editing accomplishments are effective in encouraging users to make more edits in the two months preceding receipt of the badge compared to the two months after receiving the badge. This paper aims to build upon the contributions of Grant and Betts (2013) by:

1. Using regression discontinuity to measure the causal impact of badges on user activity (questions, answers, and edits).¹

¹Lee and Lemieux (2010) provide an excellent guide for applying regression discontinuity designs in empirical research.

2. Applying the same methodology to measure the causal impact of privileges on user activity.
3. Comparing the estimated effects of badges and privileges will help us understand which components of Stack Overflow’s gamification are most effective at promoting user engagement.

Data

Describe the data.

Let’s look at the supporter badge to see how it affects questions, answers, and votes.

Results

Conclusion

References

- Deterding, Sebastian, Dan Dixon, Rilla Khaled, and Lennart Nacke. 2011. “From Game Design Elements to Gamefulness: Defining ‘Gamification.’” In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, 9–15. MindTrek ’11. New York, NY, USA: ACM. doi:[10.1145/2181037.2181040](https://doi.org/10.1145/2181037.2181040).
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