

1. Allgemeines

Innovation is an important source of competitive advantage. Over the past two decades, a continuous trend toward shifting activity from in-house R&D to the exploitation of externally generated solutions has been observable. In this process, online peer production communities, whose members collectively work on (technical) problems of joint interest, have become an increasingly important provider of innovative solutions. However, as communities are not tied to corporations via standard labor contracts, firms seeking to steer collective activity towards commercially relevant projects need to find alternative ways of incentivizing potential contributors. One opportunity is for firms to (co-)design communities of interest themselves. To do so effectively, however, they still need to get an in-depth understanding of how such communities work. In my PhD dissertation I examine (data from GitHub platform - largest and most active OSS community) how the division of labour is performed in online communities and how contributors are able to achieve various advantageous structural positions which allow them to increase productivity and enhance their (and their projects') community status. Understanding of how communities actually work and how they can be efficient in producing innovations helps to advance the current community scholarship and provide a practical advice for organizations on how to direct community production in an efficient manner.

2. Ergebnisse

The first chapter of my dissertation aims at exploring how the task allocation problem is addressed in communities. We explore which incentives lead skilled as opposed to unskilled contributors to sort into an OSS community to produce output. We show that project owners can identify best coders by growing their projects, being generous in accepting incoming code contributions, and providing (fast) feedback. Our findings indicate that the output of an online community is not (entirely) exogenous to the community founder and that output of a community might be manipulable. The second PhD dissertation's chapter aims at exploring how OSS communities create efficient division of labor that promotes further project growth and success. We suggest that different types of reciprocal behaviors a project founder can adopt towards her contributors and other GitHub community members differently affect the success/growth of her community. One approach assumes that contributors reciprocate their work to the focal founder for her contributing to other founders' projects whereas the other approach assumes that the focal founder's efforts on managing her own projects get rewarded. We find that only the founder's latter behaviour helps her to induce more incoming contributions and facilitate efficient division of labour on a project.

3. Geplante weiterführende Aktivitäten

The first project and major part of the second chapter are completed. As a next step for the second project, we are currently combining all materials together to prepare the complete manuscript draft and send it out for feedback to receive improvement suggestions. Currently, we are trying to craft the contributions section to position our study favourably in the body of existing literature streams as well as finalizing the analyses and theory arguments. This phase is planned to be accomplished in October-December 2019.

4. Anregungen für Weiterführung durch Dritte

Focusing on open source communities, this dissertation empirically demonstrates: 1) how an intra-organizational structure of a GitHub community emerges and develops over time as the projects grow and attract more developers, and 2) how the type of an emerged network is associated with the individual developer's and overall project's output and status within the GitHub community. I believe that our results will help organizational scholars and practitioners to learn how to leverage certain network formations in order to raise productivity and community growth and extract value from open source community networks.