**Essays on Value Creation in the Open Source Phenomenon: Unde****rstanding the Influence of Work Structures, Team Composition, and Community Ideologies**

**Abstract 4000**

This dissertation comprising three essays explores the value creation mechanisms associated with the work structures, team composition, and community ideologies of free (libre) and open source software (FLOSS) projects. The first essay, examines how the unique nature of FLOSS work which is dominated by the sequential layering of individual tasks, referred to as superposition, acts as an antecedent to the project’s success. Building on the theory of collaboration through open superposition, the essay theorizes the motivational mechanisms that operate within superposed work structures and unearths the contextual conditions that may limit the influence of superposition on FLOSS project value. Furthermore, given the increasing usage of FLOSS by organizations, the study investigates the specificities brought to these motivational mechanisms when FLOSS projects are owned by organizations. Using an innovative operationalization of the work structures of FLOSS projects, this essay finds support for a non-linear relationship between the degree of superposition and the success of the project. Further, this relationship is moderated by the type of ownership of the project. Overall, the first essay advances our understanding of work structures, motivation, and organizational participation in FLOSS environments. It also provides FLOSS practitioners with valuable insights for modeling the project’s task work to facilitate their success.

While the first essay establishes the importance of task-work organization in FLOSS projects, the second essay expands the inquiry into the role of team composition in the project’s success. Building on the theories of coordination and network governance, this essay studies the influence of source code access restrictions imposed on team members in mitigating coordination challenges. The study also investigates the changes brought to the coordination mechanisms when open source projects are owned by organizations. Using a Cox proportional hazard model, the study demonstrates that the relationship between the proportion of contributors who are given write access to the source code in the team and the survival of the project, is moderated by the nature of project ownership. Interestingly, the observed moderation is a crossover interaction effect that changes from negative for individual owned projects to positive for organization owned projects. Overall, the second essay advances our understanding about contributor roles, access restrictions, and organizational participation in open source environments. The findings provide open source researchers and practitioners with fresh insights for better understanding and modeling project teams to facilitate their success.

The third essay pursues an overarching view of the FLOSS community by examining the ideological underpinnings of the FLOSS community and studies its influence on project success. The essay scrutinizes two ideological shifts seen in the FLOSS community that have altered the beliefs of ‘openness’ and ‘prevention of commercial appropriation’, on which the open source phenomenon was founded. First, the emergence of ‘permissive FLOSS licenses’ that allow commercial appropriation of the collaboratively developed code, and second, ‘organizational ownership’ of FLOSS projects. Rooted in self-determination theory, this essay theorizes the mechanisms through which ideological changes influence the pathways through which work structures in FLOSS projects are related to their success. Using an instrument variable approach, this essay finds that the ideological shift pertaining to license type has a significant influence on the relationship between the work structures and project success for both individual and organization owned projects. Overall, the third essay advances our understanding of the important role that ideologies play in shaping the relationship between work structures and success of the FLOSS projects.

**Abstract 1000**

This dissertation comprising three essays explores the value creation mechanisms associated with the work structures, team composition, and community ideologies of free (libre) and open source software (FLOSS) projects. The first essay examines how the unique nature of FLOSS work which is dominated by the sequential layering of individual tasks, acts as an antecedent to the project’s success. While the first essay establishes the importance of task-work organization in FLOSS projects, the second essay expands the inquiry into the important role played by source code access restrictions imposed on team members. The third essay pursues an overarching view of the FLOSS community by examining the ideological underpinnings of the FLOSS community. This essay scrutinizes the influence of two ideological shifts seen in the FLOSS community that have altered the beliefs of ‘openness’ and ‘prevention of commercial appropriation’, on which the open source phenomenon was founded.