Strategic Open Sourcing in Companies: Why and How

Summary

Some software companies open source their software components and contribute to open source projects strategically. Motivation for this include exposure of internal code for broader review and contributions from other developers to company internal software components, good reputation in open source community etc.

However, before engaging in strategic open sourcing, companies need to clarify their motivation, contribution scope, method of contribution and expected outcome. This thesis will identify answers to the question "Why and How do companies strategically open-source software components?"

This thesis analyses existing literature in this domain and conducts exploratory expert interviews to identify these answers. Using a qualitative data analysis of the data aggregated from literature and interview, the thesis formulates sets of best practices that a company should adhere to efficiently attain their strategic goals by open sourcing. These best practices would help software companies in decision making related to open sourcing their components and to methodically plan and manage processes, resources, methods and tools to achieve their strategic goals.

Work Results

- Research method
  - Grounded Theory / QDA

- Materials gathering
  - Systematic research literature survey including web search for practitioner reports - using Webster & Watson method of literature review
  - Interviews with various roles in companies who have expertise in open sourcing selective software components

- Iterative theory building using QDA and MaxQDA / QDAcity (at least two iterations)
  - Iteration 1: QDA using existing literature
  - Iteration 3: Information categorization and structuring
  - Iteration 2: More literature, enhanced by interviews to address open sourcing methodologies

- Presentation of theory
  - Categorical classification and representation of strategies and methodologies
  - List (ideally graph) of best practices for
    - Possibly provide name-only best practices to connect graph
Specific best practices and details using pattern language
(e.g. patterns of best practice name, context, problem, solution, source)

Supervisor

Nikolay Harutyunyan, nikolay.harutyunyan@fau.de
Prof. Dr. Dirk Riehle, dirk.riehle@fau.de
Open Source Research Group
Computer Science Department
Friedrich-Alexander University

More information: http://osr.cs.fau.de/theses/resources/