

Managing Org. Data for Patch-Flow Measurement

Summary

Many organizations adopt inner source (utilization of open source development practices within an organization) to develop software more efficiently. Collaboration in inner source can be quantified by measuring the so called patch-flow (flow of patches across intra-organizational boundaries). We developed a Java tool (the patch-flow crawler) to measure patch-flow from source code management systems and other organizational (org.) data sources.

During two recent case studies, we observed that (1) the org. model underlying the patch-flow crawler is insufficient to represent the reality in large organizations and (2) org. data can often not be retrieved automatically from org. data sources.

In this thesis, the student will identify and fix the shortcomings of the current model and implement a software component to manually gather and manage org. data for patch-flow measurement.

Work Results

- Literature review
 - Common structures and setups of organizations
 - **Org. modeling, object oriented patterns for org. modeling**
 - Inner source and collaboration (superficial, only to form context for student)
- Thesis methods
 - Analysis, comparison of current model with org. data from two previous case studies
 - Design and implementation work in Java, JavaScript
- Thesis results
 - Identified shortcomings of current org. model; adaptation of current org. model
 - Developed and implemented features for manual gathering, management of org. data
 - Implemented server (REST, JAX RS) and client component (Angular 1 directives)
 - Optional: Developed, implemented strategies for reducing faults in manually entered data

Supervisor

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