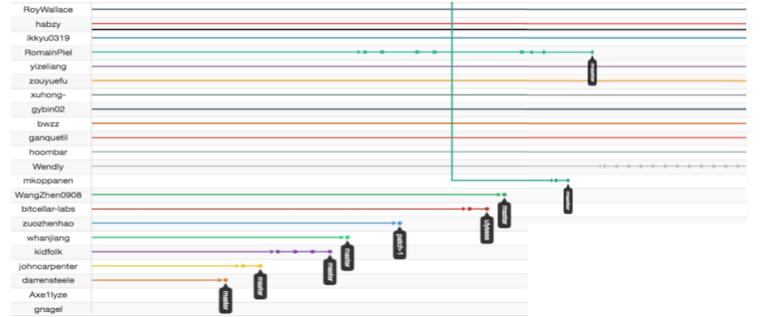


Improving Collaboration Efficiency in Fork-based Development

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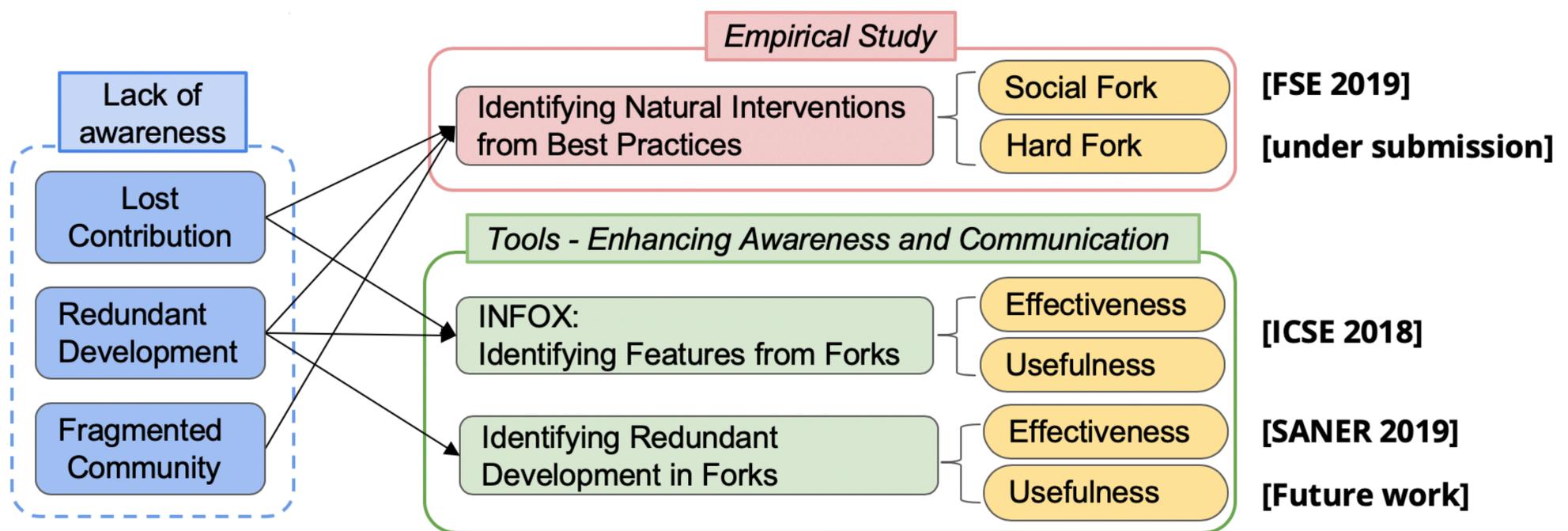
Fork-based development is a lightweight mechanism that allows developers to collaborate with or without explicit coordination.

When number of forks grows, it becomes difficult to **maintain an overview** of what happens in the community, which would lead to additional inefficient practices.

Problem

Solution

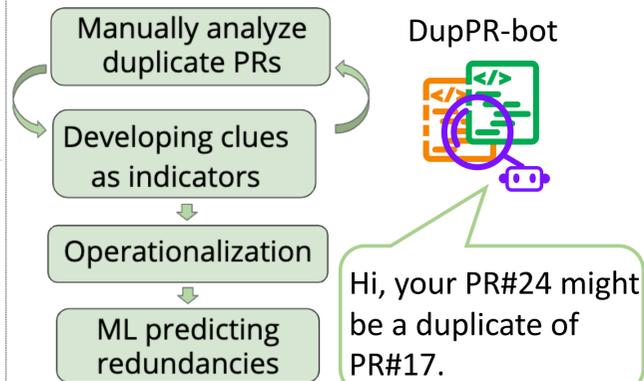
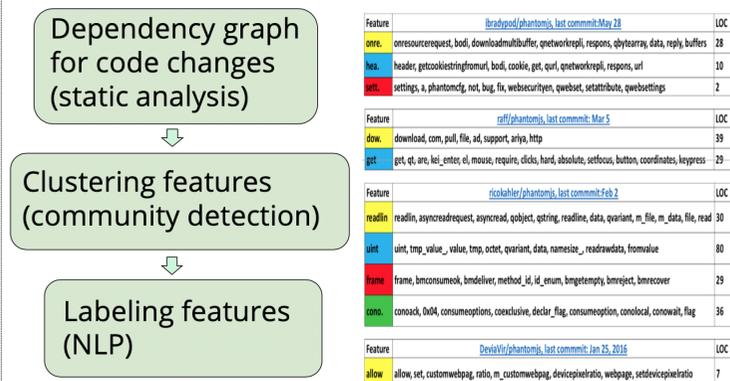
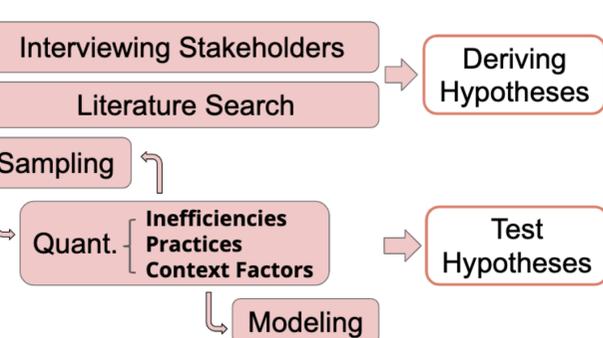
Analysis/Evaluation



Identifying Best Practices

Identifying Features

Identifying Redundancies



Result: Better modularity and centralized management are associated with more contributions and a higher fraction of accepted Pull Requests.

Result: Achieved 90 % accuracy on a set of known features. Also, INFOX can provide actionable insight for developers of forks.

Result: Achieved 57–83% precision for detecting redundancies; saved 1.9–3.0 commits of effort on average.

