

Table 1: Maintainers' Suggestions and Ways to Improve.

Community Growth Suggestions	Explanation
Measure contribution quality	Number of issues closed through pull request
	Number of merged pull request
	Lines of code
Include other types of contributions	Documentation
	Cross platform issues (e.g., Jira)
	Community interactions (e.g., Slack)
Detect non upstream contributions	Tracking fork activity and offer help/ recognition
Expand to organization level	Provide badging recommendation across the repositories of the same organization
Provide filtering by	Team membership to differentiate paid vs non paid contributors
	Type of contribution: code vs. non code
	Diversity attribute (e.g., country of residence)
Provide more granular role badging	Provide different badges and levels of recognize the various roles in between contributors and maintainers (e.g., community leader, user representative)
Project Growth Suggestions	Explanation
Batch labeling	Provide batch labeling when applying the newcomer friendly issue labels
Topic distribution for issue list	Number of newcomer friendly issues that pertain to each topic (e.g., UI, documentation)
Reminder after milestone	Provide a reminder me later feature to apply the recommendation when the milestone is completed
Successful newcomer friendly issues	Provide examples of successful newcomer friendly issues that are well described and have been solved
Future Recommendations	Explanation
Approval mechanism and stale requests	A preliminary approval mechanism for issues and PRs that follow best practices
	Notify maintainer with stale issues/ PRs
Requested review reminder	Notify maintainer with requested reviews that have not been acknowledged
Duplicate issues	Notify maintainer with duplicate issues
Best practices file templates	Provide templates and best practices for files such as README.MD and CONTRIBUTING.MD
Share and delegate	A share and delegate feature that helps delegate a recommendation to other contributors
Recommend outside contributors	Detect and recommend contributors working on a similar project to foster collaboration
Consistent badging and labeling	Provide consistent badging and labeling across GitHub