

# On the Analysis of Non-Coding Roles in Open Source Development

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**Resumen(Abstract).** The role of non-coding contributors in Open Source Software (OSS) is poorly understood. Most of current research around OSS development focuses on the coding aspects of the project (e.g., commits, pull requests or code reviews) while ignoring the potential of other types of contributions. Often, due to the assumption that these other contributions are not significant in number and that, in any case, they are handled by the same people that are also part of the “coding team”. This paper aims to investigate whether this is actually the case by analyzing the frequency and diversity of non-coding contributions in OSS development. As a sample of projects for our study we have taken the 100 most popular projects in the ecosystem of NPM, a package manager for JavaScript. Our results validate the importance of dedicated non-coding contributors in OSS and the diversity of OSS communities as, typically, a contributor specializes in a specific subset of roles. We foresee that projects adopting explicit policies to attract and onboard them could see a positive impact in their long-term sustainability providing they also put in place the right governance strategies to facilitate the migration and collaboration among the different roles. As part of this work, we also provide a replicability package to facilitate further quantitative role-based analysis by other researchers.