

MISQ Archivist

Followership in an Open-Source Software Project and Its Significance in Code Reuse

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Abstract

Code reuse is fundamental to the development of open-source software (OSS). Therefore, understanding how and why it occurs is important. To date, researchers have examined code reuse in OSS largely from the perspective of leaders. We show why followers must be considered as well. “Followers” are people who have had previous contacts with an individual from another project and who continue to associate with him or her. We consider two types of followers: developers (those directly involved in software development) and observers (those indirectly involved in it). We conduct a series of empirical investigations by using a longitudinal dataset of OSS projects hosted in GitHub, along with a survey and qualitative data. We find that followership can affect code reuse, but the effect depends on the nature of the follower (developer or observer). Overall, our study suggests that followership is important for code reuse in OSS because it enables participants to learn, and learning promotes code reuse.

Keywords: Open-source software, code reuse, developer, observer, followership theory