

A Study of the Difference in the Productivity in Software Development Before and After the Initial COVID-19 Lockdowns

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The onset of the COVID-19 pandemic had global effects on people's lives. It had a huge social, physical, and psychological effect on every aspect of people's lives. Given that the immediate response to the spread of the virus was quite radical, it is not too big a leap to wonder whether it had any effect on productivity. This study attempts to study the change in productivity in software development around the time of the initial COVID-19 lockdowns. The study is conducted on a sample of top GitHub repositories based on star count. The study firstly identifies specific, reasonable, and measurable markers for productivity and studies the trends in their mean and distribution before and after the initial COVID-19 lockdowns. This study also contributes with a reusable Python library for the analysis of the data. The study observes an overall decrease in the productivity after the initial lockdowns. It also observes slight changes in the distribution of productivity before and after the lockdowns. The study finally discusses its limitations in granularity and suggests future expansion for developing a more comprehensive understanding of productivity as a metric.