Measuring

Software Engineering

Report

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# Introduction

Software engineering has become one of the most dominant and relevant engineering disciplines of the modern era. Traditional industries such as transportation, communication, entertainment, and hospitality are gradually being transformed or outright disrupted by the software revolution. As software engineering is ingrained into many companies and processes, becoming a vital part of countless businesses and enterprises, a simple but profound question has been raised: can we measure it?

It is the ubiquitous temptation of entrepreneurs, managers, investors, and team-leads alike: can we measure the performance of a team, quantify quality of a product, calculate the efficiency of an employee. The success of the modern business and managerial models are arguably based on the usage of useful and actionable metrics. As software engineering quickly develops and becomes such an important discipline, it is inevitable that the same questions are asked. Even software engineers themselves are usually interested in their own performance.

However, is this possible? Are these useful questions to ask? Can they even be answered with any degree of accuracy or actionability? What are the ethical consequences of measuring software engineers as individuals and teams with the data and methods we have available? What conclusions can we draw from these measurements and how should we act on them? On this report, I will explore these questions and try to spark a discussion on the most important topics for each of them.