Withain Google, we sometimes say, “Software engineering is programming integrated over time.” Programming is certainly a significant part of software : engineering after all, programming is how you generate new software in the first place. If you accept this distinction, it also becomesnsion to programming. Cubes clear that we might need to delineate between programming tasks (development) and software engineering tasks (development, modification, mmimaintenance). The addition of time adds an important new dimeension to programming.

We see three critical differences between programming and software engineering: time, scale, and the trade-offs at play. On a software engineering project, engineers need to be more concerned with the passage of time and the eventual need for change. In a software engineering organization, we need to be more concerned about scale and efficiency, both for the software we produce as well as for the organization that is producing it. Finally, as software engineers, we are asked to make more complex decisions with higher-stakes outcomes, often based on imprecise estimates of time and growth.

Engenharia de software é uma area da programação que atua no desenvolvimento, manutenção e modificacao de sistemas computacionais. Tal area se difere do desenvolvimento clássico por 3 pontos.