

Stress, motivation, and performance in global software engineering

Julio Suárez ^[0000-0003-2360-0220], Aurora Vizcaíno ^[0000-0002-2072-5581]

Grupo Alarcos, Universidad de Castilla-La Mancha, Paseo de la Universidad 4, Ciudad Real
{Julio.suarez@alu.uclm.es}, {Aurora.Vizcaino@uclm.es}

Keywords: global software development, motivation, performance, stress, systematic mapping study.

Published in: Journal of Software: Evolution and Process, Issue e2600, 1-26, 2023

Impact Factor: JCR 2.0 – Q3 - Position: 62/108 - Area: Computer Science, Software Engineering

DOI: <https://doi.org/10.1002/smr.2600>

Resumen(Abstract). The objective of this study is to analyze the current perspective as regards knowledge related to what causes stress or motivates developers, how these two aspects are related to each other, and how this in turn affects their performance in the sphere of Global Software Development and how these can be controlled. This paper presents the results obtained after conducting a systematic mapping study of literature in order to analyze how stress, motivation, and performance affect the project members in Global Software Development teams. We carried out a systematic mapping of published studies dealing with stress, motivation, and performance in global software engineering. A total of 118 papers dealing with this subject were found. The literature analyzed provided a relatively significant quantity of data referring to the impact that the characteristics of distributed software development projects have on the performance and productivity of teams, along with the actions taken to improve that performance. However, when focusing on the analysis of the impact of this type of projects on team members' motivation, and on the actions that can be taken to improve that motivation, we discovered that the number of works decreases considerably and that works referring to the impact of this kind of development on developers' stress were virtually non-existent, as were those concerning ways in which to improve that stress. We are, therefore, of the opinion that it is necessary to carry out in-depth research into the aspects of working in distributed teams that may have a negative impact on developers' levels of motivation and stress, along with what could be beneficial in order to improve levels of motivation and decrease levels of stress.

