

Characterisation of Human Attitudes in Software Requirements Elicitation

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Abstract : It is evident that there has been progress in the development and innovation of tools, techniques and methods in the development of software. Even so, there are few methodologies that include the human factor from the point of view of motivation, emotions and impact on the work environment; aspects that, when mishandled or not taken into consideration, increase the iterations in the requirements elicitation phase. This generates a broad number of changes in the characteristics of the system during its developmental process and an overinvestment of resources to obtain a final product that, often, does not live up to the expectations and needs of the client. The human factors such as emotions or personality traits are naturally associated with the process of developing software. However, most of these jobs are oriented towards the analysis of the final users of the software and do not take into consideration the emotions and motivations of the members of the development team. Given that in the industry, the strategies to select the requirements engineers and/or the analysts do not take said factors into account, it is important to identify and describe the characteristics or personality traits in order to elicit requirements effectively. This research describes the main personality traits associated with the requirements elicitation tasks through the analysis of the existing literature on the topic and a compilation of our experiences as software development project managers in the academic and productive sectors; allowing for the characterisation of a suitable profile for this job. Moreover, a psychometric test is used as an information gathering technique, and it is applied to the personnel of some local companies in the software development sector. Such information has become an important asset in order to make a comparative analysis between the degree of effectiveness in the way their software development teams are formed and the proposed profile. The results show that of the software development companies studied: 53.58% have selected the personnel for the task of requirements elicitation adequately, 37.71% possess some of the characteristics to perform the task, and 10.71% are inadequate. From the previous information, it is possible to conclude that 46.42% of the requirements engineers selected by the companies could perform other roles more adequately; a change which could improve the performance and competitiveness of the work team and, indirectly, the quality of the product developed. Likewise, the research allowed for the validation of the pertinence and usefulness of the psychometric instrument as well as the accuracy of the characteristics for the profile of requirements engineer proposed as a reference.

Keywords : emotions, human attitudes, personality traits, psychometric tests, requirements engineering

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