

Machine Learning based Cultural Suitability Index (CSI) for Right Task Allocation

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Abstract— When a right person is working on a right task with appropriate context, he/she can do wonders. It has always been a challenge to select the most suitable person for a given task. When we are talking about suitability, apart from skills, cultural and behavioral suitability is required to be considered. This paper tries to identify cultural and behavioral properties of individuals along with skills to assess suitability of person for the mission. Paper proposes a new technique using multi-level context based machine learning using expressions and interactions. Suitability of a person for a given task determines how that person contributes to given task and its objectives. The available candidates can be ranked against the task at hand on the basis of suitability index (SI). Learning based on properties of the task as well as behavioral traits of candidates is used here. The algorithm is tested with responses collected for over one thousand candidates with reference to expert opinions and rankings. We have run experiments to compare proposed methods with skill based classification methods.

Keywords—*Machine Learning, Cognitive Sciences, Computational Psychology, Human Computer Interaction, Computational Behavior, Cultural computing*

*This paper will be available on IEEE explorer shortly. The link for conference [ICECCT](#)