

Projecting the Entropy of University Culture Dissemination Using Axelrod Model

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ABSTRACT

Organizational culture consists of shared values and norms that guide behavior within an organization and directly impact the mobilization of resources efficiently. Evaluation and measurement of the effectiveness of organizational culture is very important, and the dynamics of interactions between individuals in social networks must be considered. This study presents cultural entropy as an objective evaluation parameter and develops a projection approach for cultural value dissemination with the Axelrod model. The organizational culture value survey was conducted in five divisions within our university to identify the initial cultural values of each individual. The profiles of each division are presented more measurably using entropy-based characteristics mapping. Our modified algorithms of the cultural dissemination model have been applied to simulate the interaction of agents. On average, university entropy achieved 1.520, which is classified as a high entropy of cultural values. The projection of cultural dissemination shows that 2 divisions can rapidly decline, and 3 divisions tend not to be able to reduce the entropy. The projection of polarization of cultural values shows the strengthening of some cultural standard values. However, some values experience negative polarization or weakness in these standard values in the university.

JEL Codes: M14, D85, Z13

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