Is Creativity Purely Random? Testing Alternate Algorithms for Idea Screening in Crowdsourcing Contests

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Abstract

Crowdsourcing can lead to an abundance of new ideas. Its major challenge is screening these ideas, which is costly because of the limited number, expertise, objectivity, and attention of judges. Machine learning may provide some help. This paper compares three original and extended versions of algorithmic approaches to evaluating ideas, which we name: Idea's Word Colocation, Topic Atypicality, and Ideator's Inspiration Redundancy. We use data from ten real world crowdsourcing contests. The client's standard provided is to drop the 25% worst ideas without sacrificing more than 15% of good ideas. Results are: first, any individual algorithm does not meet this standard when used alone; used together, the algorithms exceed this standard. Second, the ability of the Idea's Word Colocation method to screen out bad ideas varies as a function of the corpus used to measure colocation. Third, when the best versions of the algorithms are used together, all three contribute to prediction accuracy.

Keywords: *Creativity; KI; Innovation*

Track: Innovation Management & New Product Development