

Predictability and Prediction for an Experimental Cultural Market

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Individuals are often influenced by the behavior of others, for instance because they wish to obtain the benefits of coordinated actions or infer otherwise inaccessible information. In such situations this social influence decreases the ex ante predictability of the ensuing social dynamics. We claim that, interestingly, these same social forces can increase the extent to which the outcome of a social process can be predicted very early in the process. This paper explores this claim through a theoretical and empirical analysis of the experimental music market described and analyzed in [1]. We propose a very simple model for this music market, assess the predictability of market outcomes through formal analysis of the model, and use insights derived through this analysis to develop algorithms for predicting market share winners, and their ultimate market shares, in the very early stages of the market. The utility of these predictive algorithms is illustrated through analysis of the experimental music market data sets [2].

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