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Emotions and Value of Information as Regret-Preventing Mechanisms in Sequential Search Environments

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**ABSTRACT**

We design an information acquisition algorithm where the behavior of decision makers (DMs) is determined by the value of the information being acquired. Information is considered valuable if it verifies the optimality of a given decision or prevents a regrettable one. We illustrate how the relative variability of the domains defining the characteristics of each alternative determine the information acquisition incentives of DMs. We also illustrate the existence of spread scenarios governed by indecision such that DMs exhibit a completely random behavior. The model is sufficiently flexible to be applied to multiple research areas ranging from psychology to operational research.

**KEYWORDS:** Value of information, Regret, Sequential search, Choice verification, Decision algorithm, Risk