

Sequential Search without Priors
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Abstract

The paper revisits the problem of sequential search with recall. An individual observes alternatives which arrive one by one. At every stage he has to make a choice: to stop and select one of the alternatives arrived thus far, or to continue the search. The novelty is that the individual has no prior beliefs about the environment he faces. The paper aims to find a decision rule that performs "well" independent of priors, no matter what environment the individual happens to face. The performance of a decision rule is measured as the ratio relative to the first-best performance (if the true environment were known). We show that the individual can guarantee to get $1/2$ of the first-best payoff if the alternatives have only two possible values and $1/4$ of the first-best payoff if values are chosen from a continuum.