

Abstract:

This talk, which is based on Eliaz and Spiegler (2016,2020), examines incentive issues that arise when platforms allocate consumers' scarce attention to many competing advertisers. Our broad question is whether market-like mechanisms can implement efficient allocation of consumer attention. In the main model I will discuss, a "search platform" constructs "search pools" in response to noisy signals regarding consumer preferences (the signal can take the form of a "search query"). Consumers browse their search pools via random sequential search, until they find their favorite type of product. A mechanism allocates advertisers (probabilistically) to search pools in response to their reports. We ask whether the twin objectives of minimizing consumers' expected search time and extracting advertisers' surplus are Nash-implementable by an anonymous mechanism. We obtain a simple necessary and sufficient condition that depends on the relative shares of preference types in the consumer population, as well as on the informativeness of consumers' queries (measured by Bhattacharyya similarity between the query distributions that characterize pairs of preference types). The optimal mechanism can be simulated by a "keyword auction" with "broad matching".